elaware Medical Journal

ESTABLISHED 1776

Official Publication of the Medical Society of Delaware

1789 INCORPORATED

JANUARY, 1961 ....

ST. FRANCIS HOSPITAL ISSUE


resistant
staphylococci
among
outpatients
emerge
less
frequently...
disappear
more
readily

CHLOROMYCETIN®

chloramphenicol, Parke-Davis

"Resistance to chloramphenicol was surprisingly infrequent (0-5%)" among strains of staphylococci isolated from outpatients over a 5-year period. It was impressive to note that less than 6% of 310 strains isolated from patients treated in the emergency room were resistant to CHLOROMYCETIN. Moreover, it would appear "...that chloramphenicol-resistant staphylococci disappear more readily after leaving the hospital environment."[1]

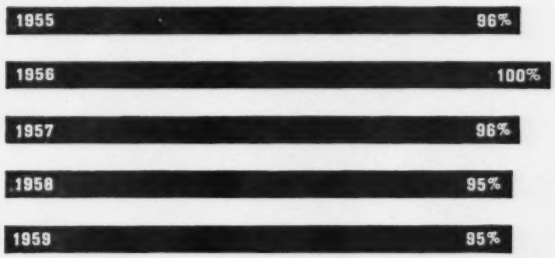
Goslings and Büchli[2] report that "...resistance was lost entirely after 3 months..." in the small percentage of patients who carried staphylococcal strains resistant to CHLOROMYCETIN. Numerous other investigators concur in the observation that staphylococcal resistance to CHLOROMYCETIN is of a low order.[3-8]

CHLOROMYCETIN (chloramphenicol, Parke-Davis) is available in various forms, including Kapseals® of 250 mg., in bottles of 16 and 100.

CHLOROMYCETIN is a potent therapeutic agent and, because certain blood dyscrasias have been associated with its administration, it should not be used indiscriminately or for minor infections. Furthermore, as with certain other drugs, adequate blood studies should be made when the patient requires prolonged or intermittent therapy.

References: (1) Bauer, A. W.; Perry, D. M., & Kirby, W. M. M.: *J.A.M.A.* **173**:475, 1960. (2) Goslings, W. R. O., & Büchli, K.: *Arch. Int. Med.* **102**:691, 1958. (3) Goodier, T. E. W., & Parry, W. R.: *Lancet* **1**:356, 1959. (4) Fisher, M. W.: *Arch. Int. Med.* **105**:413, 1960. (5) Petersdorf, R. G., *et al.*: *Arch. Int. Med.* **105**:398, 1960. (6) Glas, W. W., in Symposium on Antibacterial Therapy, Michigan & Wayne County Acad. Gen. Pract., Detroit, September 12, 1959, p. 7. (7) Modarress, Y.; Ryan, R. J., & Francis, Sr. C. F: *J. M. Soc. New Jersey* **57**:168, 1960. (8) Rebhan, A. W., & Edwards, H. E.: *Canad. M. A. J.* **82**:513, 1960.

IN VITRO SENSITIVITY OF COAGULASE-POSITIVE STAPHYLOCOCCI TO CHLOROMYCETIN FROM 1955 TO 1959*



These sensitivity tests were done by the disc method on 310 strains of coagulase-positive staphylococci. Strains were isolated from patients seen in the emergency room. It should be noted that among inpatients, resistant strains were considerably more prevalent.

*Adapted from Bauer, Perry, & Kirby[1]

10260

PARKE-DAVIS

PARKE, DAVIS & COMPANY · DETROIT 32, MICHIGAN

FOUNDED 1776
MEDICAL SOCIETY OF DELAWARE
INCORPORATED 1789

Delaware Medical Journal

Official Publication of the Medical Society of Delaware

EDITORIAL AND BUSINESS OFFICES
1925 LOVERING AVENUE, WILMINGTON 6, DELAWARE

VOLUME 33 | JANUARY, 1961 | NUMBER 1

Owned and published by the Medical Society of Delaware, a scientific non-profit corporation.

Issued the fifteenth of each month under the supervision of the Committee on Publication.

Articles are accepted for publication on condition that they are contributed solely to this JOURNAL. Manuscripts must be typewritten, double spaced, with wide margins, and the original copy submitted. Photographs and drawing for illustrations must be carefully marked and show clearly what is intended.

Footnotes and bibliographies should conform to the style of the Cumulative Index Medicus, published by the National Library of Medicine and the American Medical Association.

Changes in manuscript after an article has been set in type will be charged to the author. THE JOURNAL pays only part of the cost of tables and illustrations. Unused manuscripts will not be returned unless return postage is forwarded. Reprints may be obtained at cost, provided request is made of the printers before publication.

The right is reserved to reject material submitted for publication. THE JOURNAL is not responsible for views expressed in any article signed by the author.

All advertisements are received subject to the approval of the Committee on Publication of the Medical Society of Delaware. Advertising forms close the 15th of the preceding month.

Subscription price: $5.00 per annum, in advance. Single copies, 75 cents. Foreign countries $5.00 per annum.

CONTENTS

Entered as second-class matter June 28, 1929, at the Post Office at Wilmington, Delaware, under the Act of March 3, 1879.
Issued monthly.

IN SINUSITIS, COLDS AND UPPER RESPIRATORY DISORDERS

NEW DIMETAPP® Extentabs®

LET YOUR PATIENTS BREATHE EASIER!

In sinusitis, colds and other upper respiratory and allergic disorders, new DIMETAPP Extentabs offer more useful decongestant therapy.

UNSURPASSED RELIEF OF NASAL CONGESTION: In DIMETAPP Extentabs, the unexcelled antihistamine, Dimetane, and two outstanding decongestants—phenylephrine and phenylpropanolamine—promptly dry secretions and reduce edema and congestion in the nose, the sinuses, and the upper respiratory tract.

CLEAR BREATHING FOR 12 HOURS ON 1 TABLET: Long-acting DIMETAPP Extentabs offer up to 12-hour relief on just one tablet. Easier-to-use DIMETAPP reaches into areas which nose drops or sprays can't touch—without rebound congestion.

EXCEPTIONAL FREEDOM FROM SIDE EFFECTS: DIMETAPP Extentabs are exceptionally free of side reactions. Dimetane offers a high percentage of relief with only drowsiness as a possible, infrequent side effect. Small, fully efficient dosages of decongestants minimize overstimulation.

DIMETAPP Extentabs contain Dimetane® (parabromdylamine [brompheniramine] maleate) 12 mg., phenylephrine HCl 15 mg., and phenylpropanolamine HCl 15 mg.

DOSAGE: Adults—1 Extentab q. 8-12 hours. Children over 6—1 Extentab q. 12 hours. Administer with caution to patients with cardiac or peripheral vascular diseases and hypertension, and to those sensitive to antihistamines. See package insert for further details and bibliography.

A. H. Robins Co., Inc., Richmond 20, Virginia
ETHICAL PHARMACEUTICALS OF MERIT SINCE 1878

if you're treating a coccal infection...

you can't prescribe a more effective antibiotic than ERYTHROCIN

Erythromycin, Abbott

How much "spectrum" do you need in treating an infection? Clearly, you want an antibiotic that will show the greatest activity against the offending organism, *and the least activity against non-pathogenic gastro-intestinal flora.*

Weigh these criteria—and make this comparison—when treating your next coccal infection. Erythrocin is a medium-spectrum antibiotic, notably effective against gram-positive organisms. In this it comes close to being a "specific" for coccal infections—*which means it is delivering a high degree of activity against the majority of common infection-producing bacteria.*

And against many of the troublesome "staph" strains—a group which shows increasing resistance to penicillin and certain other antibiotics—Erythrocin continues to provide bactericidal activity. Yet, as potent as Erythrocin is, *it rarely has a disturbing effect on normal gastro-intestinal flora.* Comes in easy-to-swallow Filmtabs®, 100 and 250 mg. Usual adult dose is 250 mg. every six hours. Children, in proportion to age and weight. Won't you try Erythrocin?

®Filmtab—Film-sealed tablets, Abbott.

ABBOTT

011297

In over five years

Proven
in more than 750 published clinical studies

Effective
for relief of anxiety and tension

Outstandingly Safe

1. simple dosage schedule produces rapid, reliable tranquilization without unpredictable excitation
2. no cumulative effects, thus no need for difficult dosage readjustments
3. does not produce ataxia, change in appetite or libido
4. does not produce depression, Parkinson-like symptoms, jaundice or agranulocytosis
5. does not impair mental efficiency or normal behavior

Miltown®
meprobamate (Wallace)

Usual dosage: One or two 400 mg. tablets t.i.d.
Supplied: 400 mg. scored tablets, 200 mg. sugar-coated tablets.
Also as MEPROTABS* — 400 mg. *unmarked*, coated tablets; and as MEPROSPAN* — 400 mg. and 200 mg. *continuous release* capsules.

WALLACE LABORATORIES / *Granbury, N. J.*

CM-2532

*TRADE-MARK

# of clinical use...

...for the tense and nervous patient

Despite the introduction in recent years of "new and different" tranquilizers, Miltown continues, quietly and steadfastly, to gain in acceptance. Meprobamate (Miltown) is prescribed by the medical profession more than any other tranquilizer in the world.

The reasons are not hard to find. Miltown is a ***known*** drug. Its few side effects have been fully reported. ***There are no surprises in store for either the patient or the physician.***

NEW analgesic

Kills pain

stops tension

For neuralgias, dysmenorrhea, upper respiratory distress, postsurgical conditions... new compound kills pain, stops tension, reduces fever—gives more complete relief than other analgesics.

Soma Compound is an entirely new, totally different analgesic combination that contains three drugs. First, Soma: a new type of analgesic that has proved to be highly effective in relieving both pain and tension.* Second, phenacetin: a "standard" analgesic and antipyretic. Third, caffeine: a safe, mild stimulant for elevation of mood. As a result, the patient gets more complete relief than he does with other analgesics.

Soma Compound is nonnarcotic and nonaddicting. It reduces pain perception without impairing the natural defense reflexes.*

NEW NONNARCOTIC ANALGESIC

soma® Compound

Composition: Soma (carisoprodol), 200 mg.; phenacetin, 160 mg.; caffeine, 32 mg.
Dosage: 1 or 2 tablets q.i.d.
Supplied: Bottles of 50 apricot-colored, scored tablets.

NEW FOR MORE SEVERE PAIN

soma® Compound + codeine

BOOSTS THE EFFECTIVENESS OF CODEINE: Soma Compound boosts the effectiveness of codeine. Therefore, only ¼ grain of codeine phosphate is supplied to relieve the more severe pain that usually requires ½ grain.

Composition: Same as Soma Compound plus ¼ grain codeine phosphate.
Dosage: 1 or 2 tablets q.i.d.
Supplied: Bottles of 50 white, lozenge-shaped tablets; subject to Federal Narcotics Regulations.

References available on request.

WALLACE LABORATORIES • Cranbury, N. J.

WHENEVER COUGH THERAPY IS INDICATED

HYCOMINE®

Syrup

THE COMPLETE Rx FOR COUGH CONTROL

cough sedative | antihistamine
decongestant | expectorant

▪ relieves cough and associated symptoms in 15-20 minutes ▪ effective for 6 hours or longer ▪ promotes expectoration ▪ rarely constipates ▪ agreeably cherry-flavored

Each teaspoonful (5 cc.) of HYCOMINE* Syrup contains:

Hycodan®		
Dihydrocodeinone Bitartrate (Warning: May be habit-forming)	5 mg.	6.5 mg.
Homatropine Methylbromide	1.5 mg.	
Pyrilamine Maleate		12.5 mg.
Phenylephrine Hydrochloride		10 mg.
Ammonium Chloride		60 mg.
Sodium Citrate		85 mg.

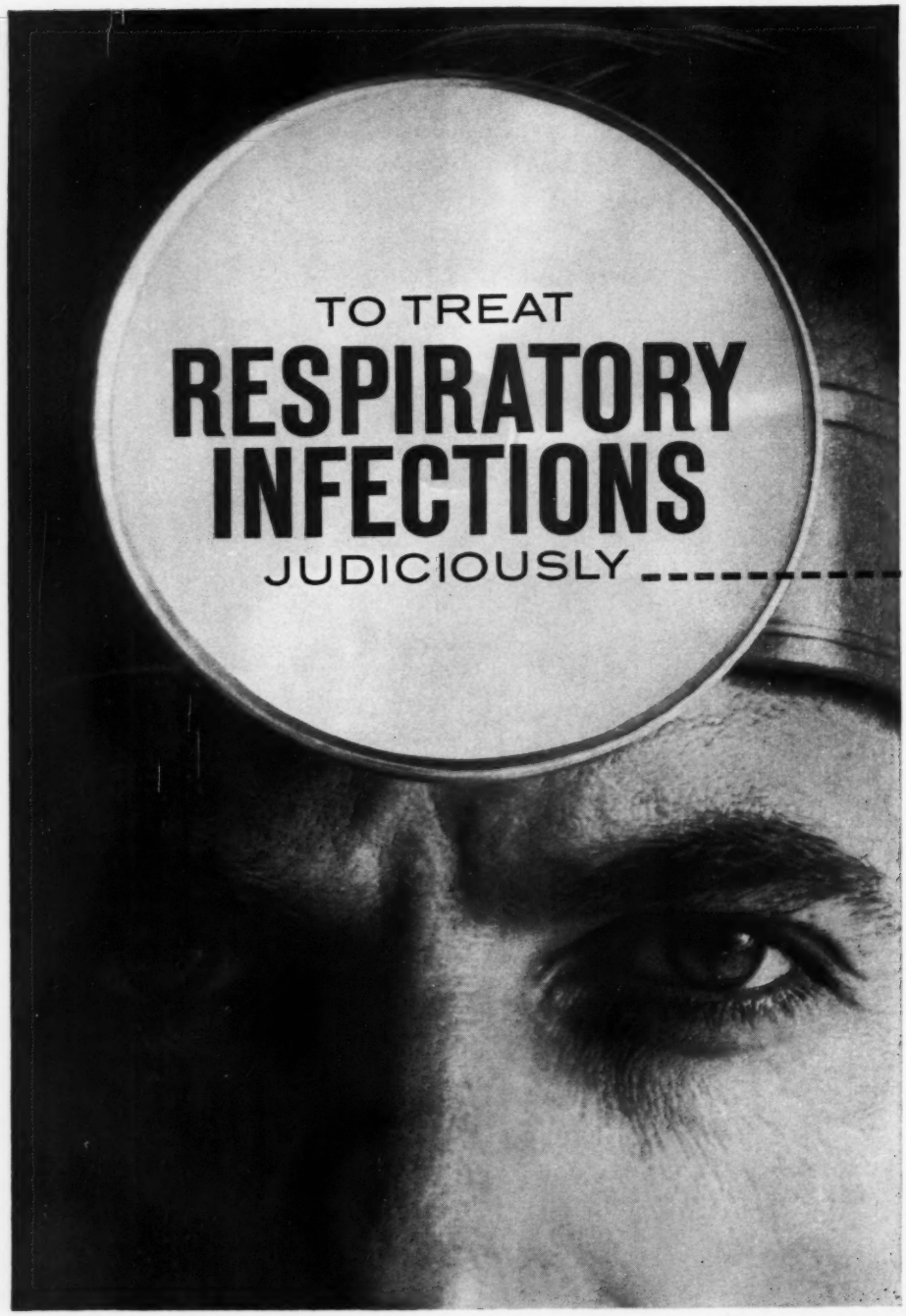
Average adult dose: One teaspoonful after meals and at bedtime. May be habit-forming. Federal law permits oral prescription.

Literature on request

Endo®

ENDO LABORATORIES
Richmond Hill 18, New York

*U.S. Pat. 2,630,400


TO TREAT
RESPIRATORY
INFECTIONS
JUDICIOUSLY

ANNOUNCING—
SPECIFICALLY FOR
INFECTIONS DUE TO
"RESISTANT" STAPHYLOCOCCI

AN ENTIRELY NEW SYNTHETIC
"STAPH-CIDAL" PENICILLIN

Staphcillin™

sodium dimethoxyphenyl penicillin
FOR INJECTION

UNIQUE—BECAUSE IT
RETAINS ANTIBACTERIAL
ACTIVITY IN THE PRESENCE OF
STAPHYLOCOCCAL PENICILLINASES
WHICH INACTIVATE
OTHER PENICILLINS

Bristol™

CUT HERE FOR FILING

NEW SYNTHETIC PENICILLIN FOR "RESISTANT" STAPH

CUT HERE FOR FILING

OFFICIAL PACKAGE CIRCULAR
November, 1960

STAPHCILLIN™

(sodium dimethoxyphenyl penicillin)

For Injection

DESCRIPTION

STAPHCILLIN is a unique new synthetic parenteral penicillin produced by Bristol Laboratories for the specific treatment of staphylococcal infections due to resistant organisms. Its uniqueness resides in its property of resisting inactivation by staphylococcal penicillinase. It is active against strains of staphylococci which are resistant to other penicillins.

Each dry filled vial contains: 1 Gm. STAPHCILLIN (sodium dimethoxyphenyl penicillin), equivalent to 900 mg. dimethoxyphenyl penicillin activity.

INDICATIONS

STAPHCILLIN is recommended as specific therapy only in infections due to strains of staphylococci resistant to other penicillins, e.g.:

Skin and soft tissue infections: cellulitis, wound infections, carbuncles, pyoderma, furunculosis, lymphangitis and lymphadenitis.

Respiratory infections: staphylococcal lobar or bronchopneumonia, and lung abscesses combined with indicated surgical treatment.

Other infections: staphylococcal septicemia, bacteremia, acute or subacute endocarditis, acute osteomyelitis and enterocolitis.

Infections due to penicillin-sensitive staphylococci, streptococci, pneumococci and gonococci should be treated with Syncillin® or parenteral penicillin G rather than STAPHCILLIN. Treponemal infections should be treated with parenteral penicillin G.

DOSAGE AND ADMINISTRATION

STAPHCILLIN is well tolerated when given by deep intragluteal or intravenous injection.

As is the case with other antibiotics, the duration of therapy should be determined by the clinical and bacteriological response of the patient. Therapy should be continued for at least 48 hours after the patient has become afebrile, asymptomatic and cultures are negative. The usual duration has been 5-7 days.

Intramuscular route: The usual adult dose is 1 Gm. every 4 or 6 hours. Infants' and children's dosage is 25 mg. per Kg. (approximately 12 mg. per pound) every 6 hours.

Intravenous route: 1 Gm. every 6 hours using 50 ml. of sterile saline solution at the rate of 10 ml. per minute.

**Warning:* Solutions of STAPHCILLIN and kanamycin should not be mixed, as they rapidly inactivate each other. Data on the results of mixing STAPHCILLIN with other antibiotics are being accumulated.

DIRECTIONS FOR RECONSTITUTION

Add 1.5 ml. sterile distilled water or normal saline to a 1 Gm. vial and shake vigorously. Withdraw the clear, reconstituted solution (2.0 ml.) into a syringe and inject. The reconstituted solution contains 500 mg. of STAPHCILLIN per ml. Reconstituted solutions are stable for 24 hours under refrigeration.

For intravenous use, dilute the reconstituted dose in 50 ml. of sterile saline and inject at the rate of 10 ml. per minute.

*This statement supersedes that in the Official Package Circulars dated September and/or October, 1960.

(continued)

CUT HERE FOR FILING

MICROBIOLOGICAL AND PHARMACOLOGICAL PROPERTIES

In vitro studies show that STAPHCILLIN is a bactericidal penicillin with activity against staphylococci resistant to penicillin G. Strains of staphylococci so far tested have been sensitive to STAPHCILLIN *in vitro* at concentrations of 1-6 mcg. per ml. These levels are readily attained in the blood and tissues by administration of STAPHCILLIN at the recommended dosage. This unique attribute is probably due to the fact that STAPHCILLIN is stable in the presence of staphylococcal penicillinase. STAPHCILLIN also resists degradation by *B. cereus* penicillinase. The antimicrobial spectrum of STAPHCILLIN with regard to other microorganisms is qualitatively similar to that of penicillin G; but considerably higher concentrations of STAPHCILLIN are required for bactericidal activity than is the case with penicillin G.

STAPHCILLIN is rapidly absorbed after intramuscular injection. Peak blood levels (6-10 mcg./ml. on the average after a 1.0 Gm. dose) are attained within 1 hour; and then progressively decline to less than 1 mcg. over a 4 to 6 hour period. It is poorly absorbed from the gastrointestinal tract. STAPHCILLIN is rapidly excreted by the kidney.

As shown by animal studies, STAPHCILLIN is readily distributed in body tissues after intramuscular injection. Of the tissues studied, highest concentrations are reached in the kidney, liver, heart and lung in that order; the spleen and muscles show lower concentrations of the antibiotic. STAPHCILLIN diffuses into human pleural and prostatic fluids, but its diffusion into the spinal fluid has not yet been completely studied. However, one patient with meningitis showed a significant concentration in his spinal fluid while on STAPHCILLIN therapy.

Toxicity studies with STAPHCILLIN and penicillin G in animals show that they have approximately the same low order of toxicity.

Certain staphylococci can be made resistant to STAPHCILLIN in the laboratory, but this resistance is not related to their penicillinase production. During the clinical trials, no STAPHCILLIN-resistant strains of staphylococci were observed or developed; the possibility of the emergence of such strains in the clinical setting awaits further observation.

PRECAUTIONS

During the clinical trials, several mild skin reactions, e.g., itching, papular eruption and erythema were observed both during and after discontinuance of STAPHCILLIN therapy. Patients with histories of hay fever, asthma, urticaria and previous sensitivity to penicillin are more likely to react adversely to the penicillins. It is important that the possibility of penicillin anaphylaxis be kept in mind. Epinephrine and the usual adjuvants (antihistamines, corticosteroids) should be available for emergency treatment. Because of the resistance of STAPHCILLIN to destruction by penicillinase, parenteral *B. cereus* penicillinase may not be effective for the treatment of allergic reactions. Information with regard to cross-allergenicity between penicillin G, penicillin V, phenethicillin (Syncillin) and STAPHCILLIN is not available at present. If superinfection due to Gram-negative organisms or fungi occurs during STAPHCILLIN therapy, appropriate measures should be taken.

SUPPLY

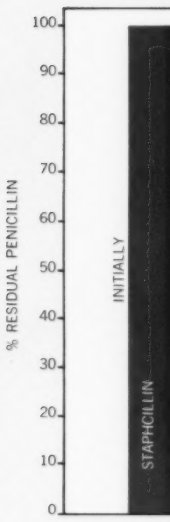
List 79502 — 1.0 Gm. dry filled vial.

BRISTOL LABORATORIES · SYRACUSE, NEW YORK
Division of Bristol-Myers Company

CUT HERE FOR FILING

UNIQUE SYNTHETIC "STAPH-CIDAL" PENICILLIN

CUT HERE FOR FILING



Specific

St

The failure of s
the penicillin-de

Unlike other pen

1 STAPHCILLIN
ence of staphyloc

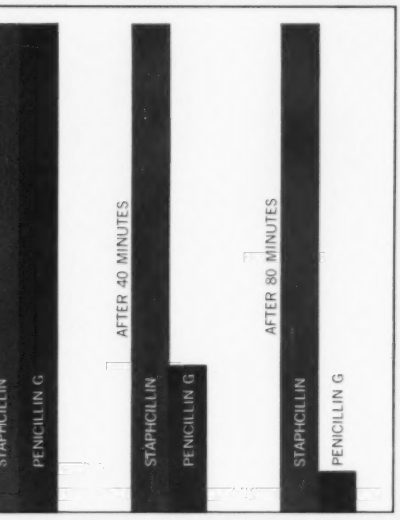
2 The clinical
a wide variety o
and life-threaten

Like other penici

STAPHCILLIN
pain or irritatio
penicillin G. *In*

PROFESSIONAL
plete information
additional inform
Bristol Laborator
PLaza 7-7061, or

BRISTOL



In the presence of staphylococcal penicillinase, STAPHCILLIN remained active and retained its antibacterial action. By contrast, penicillin G was rapidly destroyed in the same period of time. *(After Gourevitch et al., to be published)*

ically for "resistant" staph...

taphcillin™

sodium dimethoxyphenyl penicillin
FOR INJECTION

f staphylococcal infections to respond to penicillin therapy is attributed to destroying enzyme, penicillinase, produced by the invading staphylococcus.

penicillins:

LIN is effective because it retains its antibacterial activity despite the pres- lococcal penicillinase.

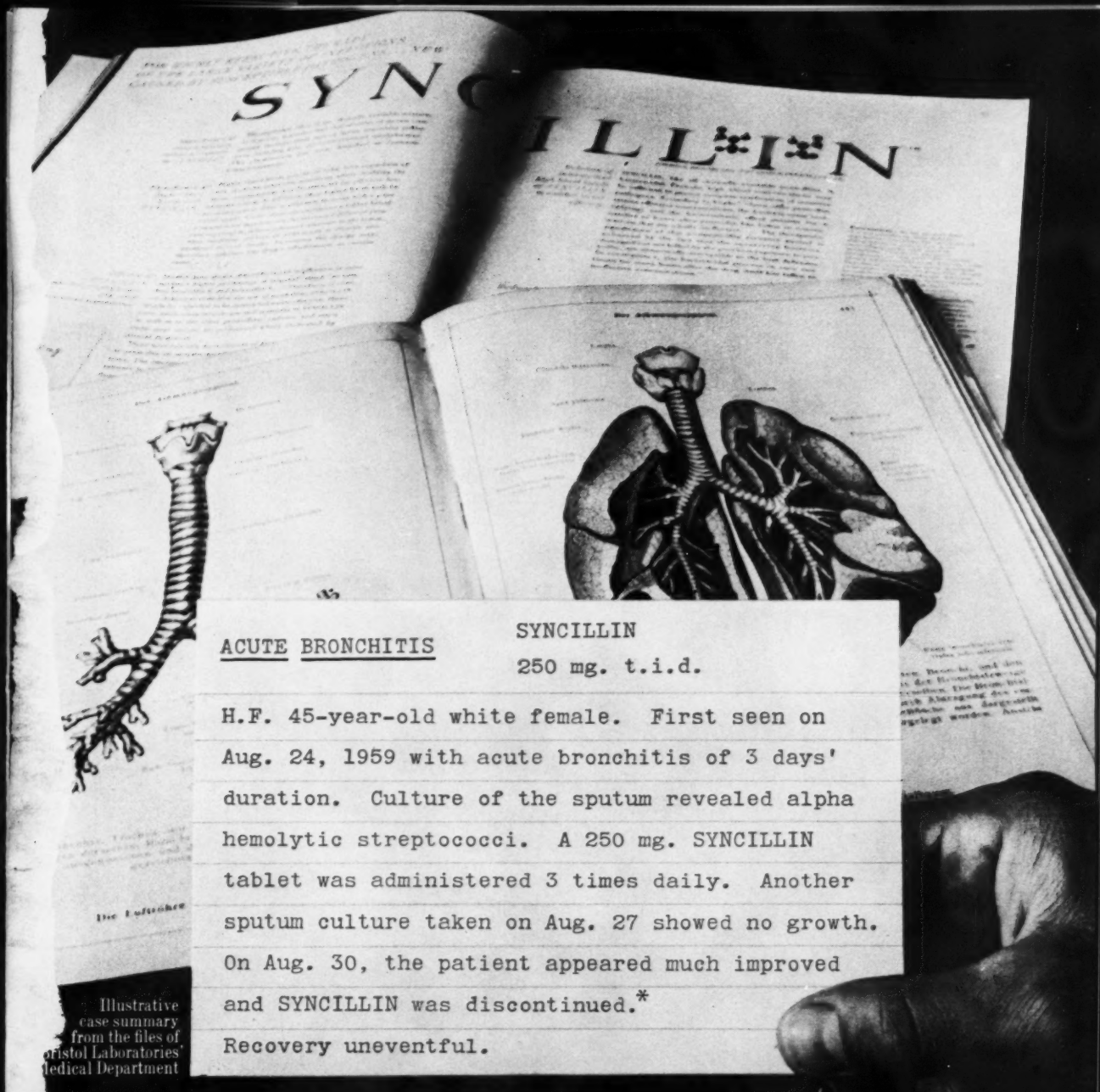
al effectiveness of STAPHCILLIN has been confirmed by dramatic results in of infections due to "resistant" staphylococci, many of which were serious ening.

icillins:

LIN has no significant systemic toxicity. It is well tolerated locally, and ion at the injection site is comparable to that following the injection of *n occasional cases, typical penicillin reactions may be experienced.*

AL INFORMATION SERVICE – The attached Official Package Circular provides com- ion on the indications, dosage, and precautions for the use of STAPHCILLIN. If you desire rmation concerning clinical experiences with STAPHCILLIN, the Medical Department of tories is at your service. You may direct your inquiries via collect telephone call to New York, or by mail to Medical Department, Bristol Laboratories, 630 Fifth Ave., N. Y. 20, N. Y.

L LABORATORIES • SYRACUSE, NEW YORK
Division of Bristol-Myers Company



ACUTE BRONCHITIS — SYNCILLIN 250 mg. t.i.d.

H.F. 45-year-old white female. First seen on Aug. 24, 1959 with acute bronchitis of 3 days' duration. Culture of the sputum revealed alpha hemolytic streptococci. A 250 mg. SYNCILLIN tablet was administered 3 times daily. Another sputum culture taken on Aug. 27 showed no growth. On Aug. 30, the patient appeared much improved and SYNCILLIN was discontinued.* Recovery uneventful.

Illustrative case summary from the files of Bristol Laboratories' Medical Department

THE ORIGINAL phenethicillin

SYNCILLIN®

(phenoxyethyl penicillin potassium)

FIRST SYNTHESIZED AND MADE AVAILABLE BY BRISTOL LABORATORIES

A dosage form to meet the individual requirements of patients of all ages in home, office, clinic, and hospital:
Syncillin Tablets – 250 mg. (400,000 units)... Syncillin Tablets – 125 mg. (200,000 units)
Syncillin for Oral Solution – 60 ml. bottles – when reconstituted, 125 mg. (200,000 units) per 5 ml.
Syncillin Pediatric Drops – 1.5 Gm. bottles. Calibrated dropper delivers 125 mg. (200,000 units)

*Streptococcal infections should be treated for at least 10 days to prevent the development of rheumatic fever and as prophylaxis against bacterial endocarditis in susceptible patients.

Complete information on indications, dosage and precautions is included in the circular accompanying each package.

BRISTOL LABORATORIES, Div. of Bristol-Myers Co., SYRACUSE, N.Y.

Available only to physicians for their distribution—

Complete Cholesterol Depressant Menus and Recipe Book

A new, authoritative patient-aid . . . for professional distribution only

Now available for use in your practice from The Wesson People . . . easy-to-use manual of 40 pages, including all necessary diet instructions . . . menus, recipes, shopping and cooking guidance . . . all worked out for you . . . so arranged and printed that you have only to check the desired daily calorie level before giving the book to your patient.

You will find this book invaluable for treating patients with elevated serum cholesterol.

Complete menus for 10 days enable you to prescribe diets which are appetizing, nutritiously adequate and which can exert cholesterol depressant activity. Special attention has been given to constructing the menu patterns so that they adhere as closely as permissible to the patient's normal eating habits.

NRC Standards fulfilled. Each menu has been calculated to provide the proper daily allowance of proteins, vitamins and other nutrients as recommended by the Food and Nutrition Board of the National Research Council.

Weight control is achieved as each day's menu is given at 3 calorie levels—1200, 1800 and 2600 calories. You prescribe the level most desirable and modify as desired.

Variety and appetite appeal for patient are built into the menu plan to an extent not previously accomplished. Alternate choices for main dishes minimize monotony, encourage the patient to follow closely the menu plan you specify.

Complete recipes—65 in all—are included to assure that the specified menus provide prescribed levels of calories, the pre-determined ratio of poly-unsaturated to saturated fat, plus essential nutrients.

Dietary fat is controlled so that approximately 36% of the total calories are derived from fat and at least 40% of these fat calories are from poly-unsaturated components (linoleates) as found in pure vegetable oil. The replacement of saturated dietary fat by this percentage of poly-unsaturated fat has been found in clinical studies most effective in the reduction of serum cholesterol and in its maintenance at desirable levels. More liberal menus are provided for maintenance after the patient's progress indicates that desired therapeutic results have been accomplished.

Family meal preparation is simplified. The menus are planned around favorite foods having wide appetite appeal for all members of the household. Patients can entertain in comfort—enjoy cakes, cookies, snacks, prepared with recipes which meet medical requirements.

A high degree of satiety is achieved even at the lower calorie levels, because Wesson provides an unexcelled source of concentrated, slow-burning food energy.

Adaptable for use with diabetics. Carbohydrates have been calculated to fall within the acceptable range for patients to whom a diet planned for diabetes is important. Calories, which must be supplied from fat when the carbohydrate intake is limited, are provided by desirable poly-unsaturated vegetable oil.

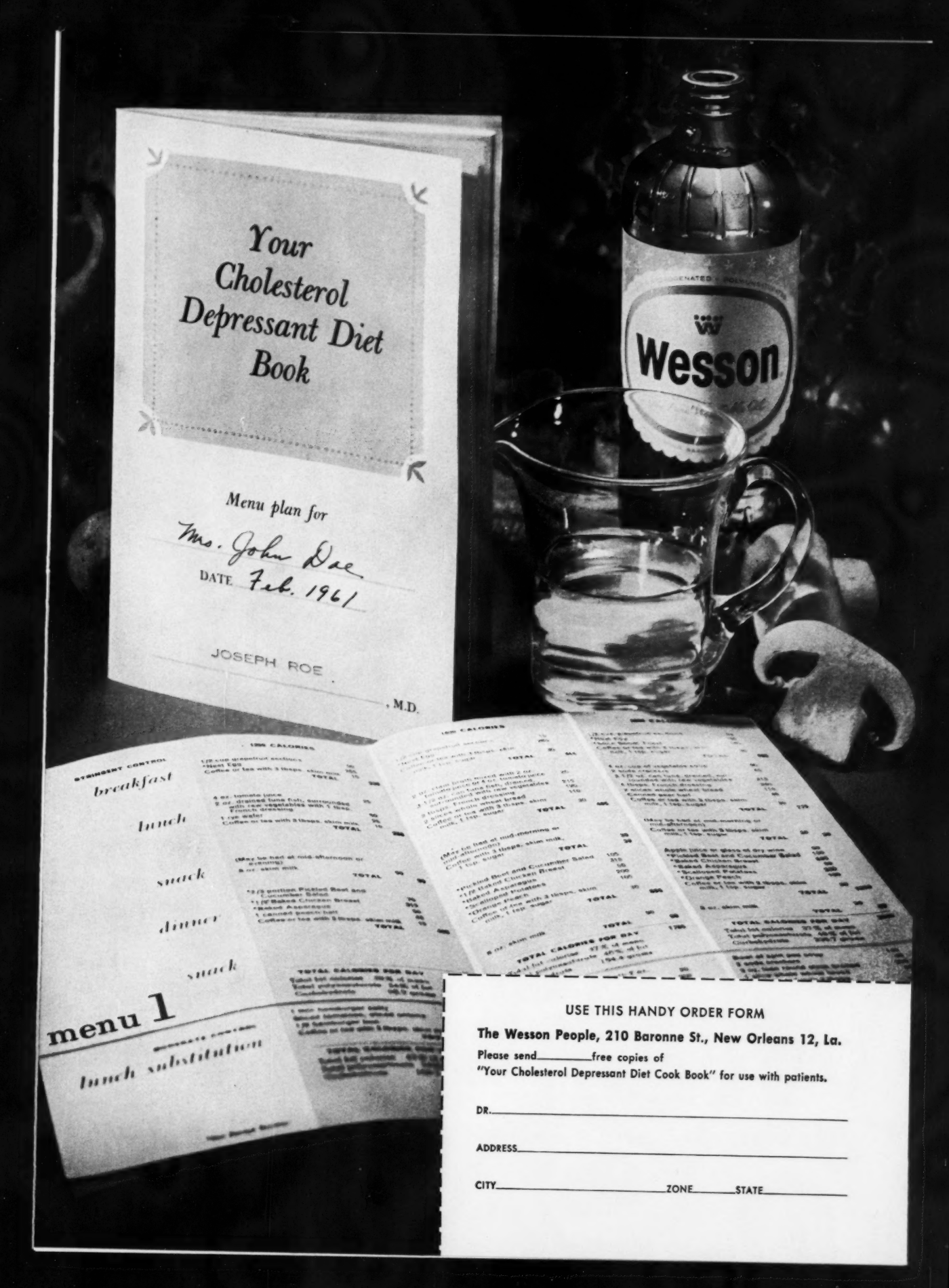
WESSON'S IMPORTANT CONSTITUENTS

Wesson is 100% cottonseed oil—winterized and of selected quality

Linoleic acid glycerides (poly-unsaturated)	50-55%
Oleic acid glycerides (mono-unsaturated)	16-20%
Total unsaturated	70-75%
Palmitic, stearic and myristic glycerides (saturated)	25-30%
Phytosterol (Predominantly beta sitosterol)	0.3-0.5%
Total tocopherols	0.09-0.12%

Never hydrogenated—completely salt free

Poly-unsaturated Wesson is unsurpassed by any readily available brand, where a vegetable (salad) oil is medically recommended for a cholesterol depressant regimen.



USE THIS HANDY ORDER FORM

The Wesson People, 210 Baronne St., New Orleans 12, La.

Please send_____free copies of
"Your Cholesterol Depressant Diet Cook Book" for use with patients.

DR._____

ADDRESS_____

CITY_____ ZONE_____ STATE_____

JANUARY, 1961
NUMBER 1
VOLUME 33

Delaware Medical Journal

CLINICAL EFFECTIVENESS OF ALLANTOIN-SULFANILAMIDE

9 AMINOACRIDINE CREAM IN SUPPOSITORY FORM

DOMINIC J. PONTARELLI, M.D.*

The gratifying results obtained by Parks with allantoin-sulfanilamide-lactose vaginal ointment in the treatment of infections of the cervix, vagina and vulva[1] recommend it as a convenient and effective method of treating many ulcerative lesions of the lower genital tract of the female.

Many erosions, unless they produce a discharge that proves annoying to the patient, require no treatment. Consideration should also be given to the fact, according to the Horoschaks,[2] that successful treatment of cervicitis—which in many cases is a predisposing factor in cervical erosion—will result in healing of the erosion. In cases where cauterization was used, treatment with allantoin-sulfanilamide-lactose cream, twice daily, reduced healing time by at least one-half.

Hansel[3] used allantoin-sulfanilamide, 9 aminoacridine vaginal cream in 25 cases of chronic cervicitis following conization. Most of the patients were healed in two weeks, and all in four weeks. The usual sloughing discharge was greatly reduced in this group of patients. It was found that this therapeutic modality: a) reduced the incidence of infection, b) prevented acute flareups after conization, c) stimulated healing and d) reduced sloughing.

Carcinoma of the cervix is frequently accompanied by a chronic vaginal discharge, which is foul smelling and irritating to the vaginal mucous membrane. Pontarelli[4] used vaginal cream containing allantoin, sulfanilamide, 9 aminoacridine in nineteen patients with established carcinoma of the cervix, and concluded that this treatment "controlled the infection and eliminated the discharge associated with this disease, eliminated the foul odor and produced a high degree of relief." He concluded that the vaginal cream is useful as an adjunct in the treatment of this disease.

The concensus is that good to excellent results are possible with the allantoin-sul-

*Associate Professor of Obstetrics and Gynecology, Hahnemann Medical College, Philadelphia, Pa.

fanilamide, 9 aminoacridine vaginal cream; however, an occasional patient-objection was encountered because the medication had to be inserted by means of an applicator. To overcome this objection, the same formula was made available in a glycerinated gelatin capsule.

According to Peikas,[1] the suppository form of allantoin-sulfanilamide, 9 aminoacridine vaginal cream proved to be effective as a treatment of post-partum cervical erosion and endocervicitis, and was non-irritating, and easily applied.

Our results with the vaginal cream used with an applicator in various vaginal and cervical disorders have been most gratifying. It was decided, therefore, to try the suppository form of this preparation in order to determine if the suppository would produce the same therapeutic response as that obtained with the vaginal cream inserted with an applicator.

Material And Method

A series of 56 females ranging in ages from 23 to 65 years with an average of 37 years presented gynecologic problems as shown in Table I.

After a detailed history survey, each patient was given a thorough gynecologic examination so that a proper plan of treatment could be outlined.

In those cases where cauterization or conization was indicated, these procedures were carried out, and treatment with AVC suppositories was started.

A course of AVC suppository treatment consisted of the insertion of one suppository twice daily (the patient was instructed to remain on her back for at least fifteen minutes following each suppository insertion) for six consecutive days. No douches or other medication were used in any of these patients during the course of this study.

TABLE I

	Number of cases
Electrocauterization of cervix (office procedure); Post-electrocauterization of cervix—benign disease	29
Postconization and biopsy of cervix	11
Post-partum cervical erosion and endocervicitis without cauterization	11
Cauterization of granulation tissue of vaginal vault following hysterectomy	4
Removal of infected Bartholin cyst	1

The above table illustrates the types of lesions for which AVC Suppository was prescribed.

TABLE II

Number Treated		*Excellent*	*Good*	*Fair*	*Poor*
29	Post-electrocauterization of cervix	21	6	1	1
11	Post-conization and biopsy of cervix	9	2	0	0
11	Post-partum cervical erosions without conization	2	7	2	0
4	Cauterization of granulation tissue	0	0	3	1
1	Removal of infected Bartholin cyst	0	0	1	0
56		32	15	7	2

Shows the results obtained in 56 patients treated with AVC suppositories.

The patients were examined at weekly intervals. If the response was not adequate, another course of suppository treatment was prescribed. In some cases, treatment extended through four or more courses.

Results

Symptomatic responses were obtained in all cases during the first week of treatment. Objective evidence of cure was obtained in 32 cases following one course of treatment, in 15 cases following two courses of treatment, in 7 cases following three courses and in 2 cases after four or more courses of treatment.

The interpretations of the results are predicted on the number of courses of treatment required to achieve a clinical cure.

An excellent result indicates that only one course of treatment was necessary.

A good result indicates that a minimum of two courses of treatment were needed.

A fair result indicates that at least three courses of treatment were given.

A poor result indicates that four or more courses of treatment, in addition to subsequent cauterization, were needed.

All the patients were eventually cured from a clinical standpoint.

Summary And Conclusions

A total of 56 patients subjected to various surgical procedures were treated postoperatively with suppositories containing allantoin-sulfanilamide and 9 aminoacridine in an acid cream base adjusted to pH 5 to 5.5.

Good to excellent results were obtained in 47, fair in 7 and poor in 2 cases.

There were no side effects reported or observed as a result of the treatment.

The AVC suppositories are easy to use, readily accepted by the patient and represent an effective therapeutic agent in the clinical conditions described.

REFERENCES

1. Parks, J.: Treatment of Infections of the Cervix, Vagina and Vulva with an Allantoin-Sulfanilamide-Lactose Ointment. Med. Annals Dist. of Columbia, 12:175-177 (May) 1943.
2. Horoschak, A. and Horoschak, S.: Chemotherapy in Management of Leukorrhea. Jour. Med. Soc. New Jersey, 43:92-95 (Mar.) 1946.
3. Hensel, H. A.: An Improved Vaginal Cream in the Practice of Gynecology. Postgraduate Med., 8:293-296 (Oct.) 1950.
4. Pontarelli, D. J.: Simple Method for Control of Vaginal Discharge Related to Carcinoma of the Cervic. Del. State M. J., 26:101-103, (May) 1954.
5. Peikes, I. L.: A Procedure to Prevent Postpartum Cervical Erosion. The Journal Lancet, 79:368-370 (Aug.) 1959.

Contributors

James J. Gallagher, M.D., Jefferson Medical College, '46, interned at Philadelphia General Hospital; served in the U.S. Army, 1947-49; General Practice, Philadelphia, 1949-54; served residency at Jefferson Medical College Hospital, 1954-57 and is an instructor in Urology, at Jefferson Medical College.

A. Lee Lichtman, M.D., Cornell University Medical College, '38; M.S. and Ph.D. in surgery, Minnesota, 1944-45, was the recipient of a research prize in 1936, under Drs. J. E. Sweet and W. H. Chambers; interned at Trudeau Sanitorium and Queens General Hospital. From 1941-46, Dr. Lichtman was Fellow, First Asst. and then Assistant in Surgery at Mayo Clinic; was lecturer in surgery, Kahler School of Surgery and Officers on assignment from armed forces; and First Lieut. M.C., Surgeon in Residence, Kahler Hospital.

Dominic J. Pontarelli, M.D., is a founding fellow, American College of Obstetrics and Gynecology; Senior Attending Physician, OBG, Hahnemann Medical College Hospital; Consultant OBG, Veterans Administration Hospital, Phila. and Asst. Visiting Chief, Philadelphia General Hospital.

Dr. Erna Alture-Werber, Ph.D. in biology, University of Vienna, came to this country in 1936; was Research Fellow and later assistant to Dr. Geoffrey Rake, Squibb Institute, New Brunswick, N. J.; Chief Microbiologist until 1958, Jaques Loewe Research Foundation, New York.

Albert J. Wildberger, M.D., University of Maryland School of Medicine, '52, intern at University Hospital, Baltimore, Md., General Practice, Georgetown, and active staff member of Milford Memorial Hospital, Milford, Delaware.

Aubrey C. Smoot, Jr., M.D., University of Maryland School of Medicine, '52, intern at Delaware Hospital, Wilmington, General Practice, Georgetown, and active staff member of Milford Memorial Hospital, Milford, Delaware.

PROSTATECTOMY

Indications and Choice of Procedures

● **A concise discussion of the indications for prostatectomy and the merits of different techniques.**

JAMES J. GALLAGHER, M.D.*

The history will provide most important information when attempting to decide whether a patient requires operative intervention for prostatic obstruction. The degree and duration of the existing obstruction will be indicated by the voiding pattern. In prostatic obstruction, the voiding pattern is altered primarily by the irritative symptoms of nocturea and frequency. These are followed by secondary obstructive symptoms of hesitation, straining and interrupted voiding. When the latter symptoms occur, a state of bladder decompensation usually has been reached. Concurrently, there is a diminution in the caliber and force of the urinary stream and often there may be present a feeling of incomplete emptying of the bladder. The degree of obstruction does not necessarily correspond to the patient's declared state of good health. Many patients do not realize how altered the voiding pattern has become if the changes have appeared slowly. It is always amazing how renal insufficiency can develop slowly and not considerably affect the patient's well being. Generally, any patient voiding consistently more than twice at night, and in whom any of the obstructive symptoms in the voiding pattern appear, should be regarded as a candidate for removal of his obstruction. Those patients having only minor irritative symptoms may be treated non-surgically for a time.

The physical examination will provide important information about the bladder status and size of the prostate gland. If, after voiding, the bladder is found to be enlarged by palpation and percussion, either residual urine or a large diverticulum is present. The bladder must contain 150 cc. for it to be palpable above the symphysis pubis. The rectal examination of the prostate will indicate the size of the adenomatous hypertrophy. The size of the prostate does not necessarily correlate with the degree of obstruction present. Some of the most severe forms of prostatic obstruction are seen when the prostate is felt to be small, but when a large intravesical median lobe is present. Conversely, a large prostate does not necessarily indicate a marked degree of obstruction. There is confusion in the differential diagnosis between contracture of the vesical orifice and benign prostatic hypertrophy. Symptoms of obstruction due to contracture of the vesical orifice occur frequently between the ages of forty and fifty. This condition is thought to be due to a chronic prostatitis though the history is not obtainable at

*Chief in Urology, St. Francis Hospital, Wilmington, Delaware.

times. The necessary operation of resection of the vesical orifice is many times improperly deferred because the patients are not quite in the prostatic age group, or because they have small sized prostates.

The laboratory examination should include a stained urinary sediment, urine culture and sensitivity. There also should be estimations of renal function. In those patients harboring urinary tract infection in conjunction with prostatic obstruction, the obstruction should be removed as soon as the infection can be brought under control. It is generally impossible to permanently eradicate a urinary tract infection unless the obstruction is removed.

Pyelonephritis and epididymitis are undesirable complications of urinary tract infection and obstruction. Renal function can be satisfactorily measured by estimation of blood urea nitrogen and the phenolsulfonphthalein test. Impairment of renal function due to obstruction is a final phase and demands immediate attention.

Indications

The passage of a urethral catheter to determine the amount of residual urine present will also help to rule out urethral stricture. The presence of residual urine indicates a chronic obstruction and decompensation of the bladder. The absence of residual urine does not always mean that the patient is not obstructed.

Intravenous pyelograms may indicate also the degree of obstruction. Dilatation of the lower ureter is common with prolonged back pressure due to obstruction. Median lobe hypertrophy is indicated by the amount of elevation in the bladder base.

Cystoscopic examination will show objective signs of obstruction, such as hypertrophy of the interureteric ridge, and varying degrees of hypertrophy of the bladder muscle causing trabeculation of the bladder mucosa. This can be followed in later stages by cellule formation and diverticula. The degree and type of prostatic obstruction can be visualized.

The problem of whether prostatectomy should be done, should be resolved after a review of the history and physical examination, the laboratory examinations, and the specialized examination such as intravenous pyelograms and cystoscopy. Before surgery is decided upon, the patient should be in optimum condition, and this often requires preliminary treatment of the defects common in the age group. If the poor operative risk of the patient makes surgery impossible, one should rely on urethral catheter drainage with vasectomy or suprapubic drainage.

The choice of the operative procedure is decided by the size of the gland, the age of the patient, the operative risk and the advantages and disadvantages inherent in each procedure.

The size of the prostate decides whether open surgery or transurethral surgery is to be done. Prostate glands weighing less than 45 grams are considered usually appropriate for transurethral resection. Above this weight there is apt to be a prolongation of the operating time beyond a safe limit, which has been considered to be one hour of tissue resection.

Transurethral resection may be done at any age in the poor risk group. In patients with prostate glands weighing more than 45 grams, superapubic or retropubic prostatectomy is generally advised if the patient is under the age of sixty-five, so that sexual potency may be preserved. Any of these patients who are poor risks, or who are over the age of sixty-five should be considered candidates for perineal prostatectomy.

Procedures

There is no unanimity of opinion among urologists regarding the virtues of various operative procedures. This was emphasized in an editorial appearing in the Journal of the American Medical Association in 1957. There are, however, inherent disadvantages and advantages with each procedure. Transurethral resection is tech-

nically the most difficult operation to perform. It does, however, offer the lowest mortality and morbidity and the greatest degree of patient comfort post-operatively.

Suprapubic prostatectomy is the simplest procedure to perform, but carries a relatively shocking post-operative course with danger of secondary hemorrhage, and a rather uncomfortable post-operative course.

Retropubic prostatectomy diminishes patient discomfort, but presents the danger of secondary hemorrhage, and the possibility of osteitis pubis developing as a complication.

Perineal prostatectomy may cause sexual impotence and the dangers of urinary incontinence and rectal fistula are ever present. With this procedure, operative and post-operative shock is usually minimal as well as patient discomfort. The patient is also rapidly mobilized as in transurethral resection.

	Post-operative Patient Comfort	*Mortality*	*Morbidity*	*Hospital Stay*
T. U. R.	1	1	1	1
Suprapubic	4	3	3	3
Retropubic	3	3	4	2
Perineal	2	2	2	4

A comparison of various procedures can be seen from the following chart. The procedures have been graded from one to four, i.e., from advantage to disadvantage. This should not be considered a condemnation of any particular operative procedure other than transurethral resection, since one is generally forced into these procedures, because of the patient's deferring operation. It should impress one with the need for encouraging early treatment.

Popular New Approach

A completely new approach has been popularized by Vallett[2] via the trans-sacral route.

A survey of the literature from 1940 to 1945 and from 1950 through 1955 was made by Fox and Dodson,[3] to determine the mortality of transurethral resection versus open procedures. From 1940 to 1950, 7,910 transurethral resections and 1,002 open procedures were done, with a mortality of 2.1% in transurethral resections and 6% to 7% in open procedures. From 1950 to 1955, 5,715 transurethral resections were done, and 2,123 open procedures. The mortality rate in this group was reported as 1.4% in transurethral resections, and 1.8% in open procedures. It was felt by the authors that the reason for the mortality rate not dropping as sharply with resections in later years, was due to the fact that more transurethral resections were being done on poor risk patients, during that time.

Survey Of Hospital Cases

The type and number of prostatectomies done at St. Francis Hospital from 1933 to 1960 were reviewed, with the following results.

1933 to 1950 Transurethral resections 48
Perineal prostatectomy 19
Suprapubic prostatectomy 25

1950 to 1960 Transurethral resections 176
Perineal prostatectomy 0
Retropubic prostatectomy 2
Suprapubic prostatectomy 27

It is apparent that many more transurethral resections are being done than other procedures. If any inference is to be drawn from this disparity it may be that prostatic obstruction is being recognized earlier, and operative intervention is being resorted to sooner.

REFERENCES

1. Prostatectomy J.A.M.A., 164 (2), 11 May 1957 (Editorial).
2. Parasacral Prostatectomy, Brice S. Vallett, M.D., J. Urology 81:315-321, Feb. 1959.
3. Mortality following Prostatectomy, P. G. Fox, Jr., M.D., A. I. Dodson, Sr., M.D., North Carolina Medical Journal, 20 (2), 67-69 February 1959.

THE FUNCTION OF THE VIRUS DIAGNOSTIC LABORATORY*

ERNA ALTURE-WERBER, PH.D.**

The function of a virus laboratory is to study and evaluate infectious diseases caused by viral and rickettsial agents. This field is a very complex science and involves the employment of many old and new methods for diagnostic and research work.

This paper is intended to outline the entire technical procedures to the practicing physician, the hospital resident and the medical technician who deal with patients afflicted with viral and rickettsial infections. Their full cooperation is of vital importance to the virologist.

Appropriate specimens must be well chosen and properly collected at the right time so they reflect the clinical picture of the patient. Blood, spinal fluid and biopsy specimens must be collected under sterile precautions. Material not normally sterile, such as stool, throat swabs, exanthematous, vesicle fluids, etc., should be collected in sterile containers in order to prevent outside contaminations.

The positive method for the diagnosis of viral infections consists of the isolation of the inciting agent and its confirmation by serological procedures. In order to demonstrate a rising antibody titer two or more blood sera must be obtained, the first as early as possible from the onset of the disease, the second two weeks later and a third after recovery.

In the diagnosis of viral and rickettsial The infected tissue may be examined by the pathologist; 2) The isolation and identification of the inciting agent; 3) The demonstration of the appearance and the rise of antibodies through one of the serological methods such as the complement fixation tests, the hemagglutination inhibition tests, the various specific and nonspecific agglutination tests, and the neutralization tests in the animal, in the embryonated egg, and in various tissue culture systems.

It is not always possible to follow all of these three lines of approach, therefore, procedure is usually determined by the nature of the disease. Microscopic methods are simple but limited, and although they can be used for vaccinia and variola viruses it is always advisable to confirm these results by serological tests.

The isolation and identification of viruses are special procedures, and are in most laboratories, undertaken with specimens suitable for this purpose. In cases, where the illness is interrupted by death in the early stage of the disease, this is the only method of diagnosis.

For the common occurring viral diseases many immune sera and antigens are commercially available. The less common ones have to be prepared in the laboratory. In some complement fixation tests like poliomyelitis, live virus grown in tissue culture

*Read before the Delaware Academy of General Practice Annual Meeting, December, 1959.

**Chief Virologist, Virus Laboratory of Delaware, Inc.

is used as an antigen. The same holds true for the unknown virus, which is tested against a battery of immune sera to identify it. The load of work for the virologist increases if neutralization tests and isolations are attempted in the animals. The maintenance and care of the animals are very important. Animals must be healthy and kept well so that the observations would be of value for the diagnosis. Monkey kidney tissue cultures are commercially available. Other cell lines of human or animal origin may be obtained commercially or may be grown in the laboratory. Embryonated chick eggs are inoculated by various routes at various stages of development. The flu viruses grow in the amniotic and in later passages in the allantoic cavity of the chick egg. Rickettsia and inclusion bodies of the lymphogranulora-psittacosis group propagate extremely well in the yolk sac. The same can be said for the viruses causing encephalitis, as the Eastern Equine, the Western Equine, Japanese encephalitis, etc.

Proper collection, shipment and storage of specimens are vital for successful isolation. Besides the well chosen material, certain patient information is mandatory and should be sent with the specimen, because the virologist should know whether the patient is suffering from a nervous, a respiratory or systemic disease, an intestinal infection or exanthematous eruptions. An intelligent approach to the study is not possible and the cost of the tests will increase considerably if the presumptive diagnosis is not available.

As a routine procedure, in our laboratory, all specimens for isolation are cultured on tissue culture tubes (Monkey kidney, Hela cells, Human and Animal cells), and studied for their cytopathogenic pattern. According to the presumptive diagnosis from the admitting physician, the enriched material is inoculated into eggs, suckling, young and adult mice. When aseptic meningitis is inidicated, one may isolate Polio, Echo or Lymphocytic Chorio Meningitis virus by the tissue culture methods. Coxsackie virus is isolated in suckling mice and the various encephalitis viruses are isolated in young and adult mice and in the yolk sac of embryonated eggs.

All packages mailed to the laboratory should be labeled and marked as to their contents so as not to endanger the laboratory personnel.

For serological examination, two blood specimens at least should be submitted: one taken at the acute phase of the disease and one 2-4 weeks later in the convalescent stage. It cannot be too strongly emphasized, that the second specimen is the most important. A four-fold or higher rise of antibody titer confirms that the patient had experienced the disease indicated. High titers of antibodies in an acute serum are very often of no significance, but the demonstration of an increased titer, in the convalescent serum is significant. This second serum must be submitted even when the patient is on the way to recovery or dismissed from the hospital.

Blood taken for a serological test should be taken sterile, clotted, kept in the refrigerator and never frozen unless the serum is separated from it.

If separation is not possible it should be sent to the laboratory in the clotted form; thus, the chances of contamination are reduced. Serum contaminated by microbes is anticomplementary and therefore unsatisfactory for our work.

For the isolation of the viruses one usually submits blood, throat-swabs, cerebral spinal fluid, stools, nasal washings, effusion fluids, vesicle fluids, lesion scrapings, biopsy tissues, post mortem tissues as brain, lung, liver, et cetera. In obscure infections it is wise to collect more material than less. Many viruses and rickettsia survive in the blood cells. All material should be collected as early as possible since many agents are present only at the onset of the disease. Swabs should be placed into tubes containing small amounts of nutrient broth or Hanks balanced salt solution. All material

except blood specimens, should be frozen until ready for shipment. If the specimens must be shipped without dry ice, the specimens may be placed into 50% sterile glycerine solution.

The isolation of a virus is a significant finding, but a negative result does not exclude the suspected agent as being responsible for the disease. Positive agents may persist in the body for weeks, months and years without being responsible for the disease. The mere recovery of a virus from the stool does not establish the diagnosis of the disease associated with these viruses, (the current disease may be totally unrelated). The need for evaluation is necessary, where two diseases occur endemically at the same time, as for instance the poliomyelitis and the encephalitis viruses. The rise of an antibody titer to one of the encephalitis viruses and the recovery of a poliomyelitis virus would contribute very little to the diagnosis. It would be necessary to follow-up such a case by studying later sera for an eventual rise of the titer in order to establish that the patient had experienced a poliomyelitis infection. A similar situation arises with the isolation of poliomyelitis and coxsackie viruses. Except for the Herpangina and epidemic Pleurodynia the role of the Coxsackie viruses are not fully understood. New viral isolates must be accepted with reservations. It may be a latent virus or a wild virus of the host animal.

Failure to isolate a virus may mean that: a) the material was not collected at the right time, or was mishandled in storage and shipment; b) in post mortem cases the material was collected unsterile and was not properly stored. For example, Eastern encephalitis virus will disappear from the spinal fluid if not frozen immediately, at least within a half hour from the time of collection; c) the host used for propagation was not the appropriate one.

Evidence of viral activity is observed in tissue culture through cytopathogenicity. Viral activity in the animal makes itself evident by observing the animal's strange behaviour or its death. The infectivity in the animal is very low and sometimes only one of the animals in an experiment becomes sick or dies. This particular animal should be studied for lesions in the lungs (in the case of flu) or if psittacosis is suspected and the spleen is enlarged, smears should be made. Infected material from all sick or dead animals should be passed to other animals. If no signs of the disease occurs, the animals should be sacrificed and examined serologically for suspected antibodies. The embryo in the egg dies sometimes, but not very often. Flu virus established in the egg propagates well in the allantoic fluid; inclusion bodies and rickettsia are found in the yolk sac and can be observed microscopically.

If the virus is present in very low concentration, its detection is sometimes impossible after one or two passages. Viruses can be masked through the presence of neutralizing antibodies.

Of all the serological methods, the complement fixation test is a very satisfactory procedure for a large volume of material.

The hemagglutination inhibition test is based on the ability of some viruses to agglutinate red blood cells (usually chicken cells or human O cells), and the addition of a type specific virus will inhibit this ability; in these tests, likewise, only paired sera should be tested simultaneously. Antibodies to one type of flu may be present before onset of the disease caused by another type and untrue evaluation may be made when testing only one serum. Hemagglutination tests are feasible for the various flu strains, New Castle disease, Dengue fever, variola and vaccinia viruses and for some of the encephalitis viruses. Unfortunately these tests are very strain specific, and not only the work load is increased, but one has to have all the strains on hand to match the patient's serum in order not to miss the rise of an antibody titer. The non-specific inhibitors are another problem in virolory and must be removed from the sera by receptor destroying enzymes.

Worth mentioning are the non-specific agglutination tests, as the Weil Felix Tests using Proteus OX 19, OX 2 and OX K for differentiation of the various rickettsial diseases. The specific CF tests have replaced the Weil Felix Reactions lately. Additional non-specific tests are: the Cold agglutinins and the Mg-streprococci agglutinins for the diagnosis of atypical pneumonia.

The recently developed fluorescent antibody technique should not be left unmentioned. They can be used if enough virus is present. When the virus is brought in contact with specific labeled immune serum it will show up as a specific illuminated stain under fluorescent light and can be observed in the microscope and can be photographed.

Summary

The function of the present day viral and rickettsial diagnostic laboratory has been outlined.

The methods of collection and preparing specimens for a virus laboratory are described.

The various techniques of viral isolation in tissue culture systems, animals and eggs are discussed.

The various serological tests used are discussed and their limitations are emphasized. The most recent fluorescent antibody techniques are mentioned.

DISCUSSION OF DR. WERBER'S PAPER

GEORGE J. BOINES, M.D., DIRECTOR

I wish to congratulate Dr. Werber for her presentation of such an interesting paper on the functions of a virus diagnostic laboratory.

As Dr. Werber indicated, viruses are important etiologic factors of present day diseases. An accurate knowledge of the diseases which are prevalent in our midst is necessary for public health protection and the prevention of the spread of any disease.

At least eleven cases who would have been diagnosed as poliomyelitis were proven to be diseases caused by the Coxsackie (6) or lymphocytic choreomeningitis (5) viruses. Dr. Werber not only does the complement fixation tests but also cultures each specimen into monkey kidney cells, human cancer cells(Hela), eggs, or suckling mice, in order to isolate the virus. As we all know the enteric viruses, that is, Polio, Echo, and Coxsackie, present similar clinical pictures. The only exceptions being the group B Coxsackie virus which produces pleurodynia, and some of the Echo viruses which produce a measle-like rash. In the past few years all of the enteric viruses have been associated with some degree of muscle weakness or paralysis so that the problem of differential diagnosis has been impossible without the aid of virology.

Thus far this year seven cases of poliomyelitis have been reported, of these only two children, aged 3½ and 9, have been severely paralyzed, neither one of whom had the Salk vaccine. The thorough immunization program conducted by our State Health Department under the direction of Dr. Floyd Hudson has proven its value.

We have distributed copies of forms to be used by physicians requesting viral diagnostic tests. The viral diseases, the tests, the specimens required, and other information needed by the virologist are listed. It is important to collect the specimens of blood, throat swabs, spinal fluid, and feces, as soon as the disease is suspected. The chances of isolating the viruses are greater during the first few days of the acute illness.

The instructions for collection of specimens for viral diagnostic testing are outlined on the forms.

ORAL TRYPSIN IN TRAUMATIC INJURIES
And Certain Orthopedic Problems

A. LEE LICHTMAN, M.D.*

The fundamental physiologic reaction in any case of injury is spasm of smooth muscle, contraction of arterioles, and increased capillary permeability. These reactions are frequently complicated by pain, which may well bring about a disturbance in the body's physiologic balance. Such a break in the physiologic balance may lead to permanent tissue injury, invalidism, or even death.

It is one of the miracles of nature how the body responds to correct defects caused by injury. The body marshals its forces, with every part of the body contributing its share, to compensate for and reverse or heal the injury. This mechanism is dependent on the circulation of the blood from one capillary bed to another, by way of the larger vessels.

The more severe the injury, the greater is the nutritional disturbance. The intensity of the protein depletion and the duration of the period of this depletion will depend on the extent of the injury and the nutritional state of the individual at the time of injury. An evaluation of the patient's general condition should always precede that of his specific injury.

Injury frequently results in the characteristic phenomena of inflammation, edema and pain. These phenomena are observed in soft tissue when a bruise causing blow has been struck, in the area of a sprain, and at the site of a fracture.

Celsus has pointed out that every type of inflammation is characterized by four cardinal features: redness, swelling, heat and pain. Hunter added another feature—"loss in function"—to which Menkin added a biochemical feature.[1] Pain has become recognized as an important warning of danger to the body; however, it is not necessary to a suitable biologic adjustment. It has been established that the intensity of pain is not directly proportional to the degree of severity of tissue damage. Inflammation has the capacity to lower the pain threshold.

The use of crystalline trypsin as a therapeutic tool in the management of inflammation and edema has been adequately reviewed by Moser[2] and Martin.[3] Crystalline trypsin, injected intramuscularly, has been advocated as a therapeutic agent in a wide variety of conditions. While it was used first because of its local proteolytic action on necrotic tissue and exudates, later applications involved its anti-edema, anti- inflammatory action when given intramuscularly. In bacterial and chemical inflammation, in trauma and in hemorrhage it hastens the reabsorption of the exudative of extravasated elements into the blood and lymphatic vascular systems. By reducing excessive edema it hastens resolution and healing. Because of its action against both inflammatory and traumatic edema trypsin is theoretically useful in many different conditions.

An enteric coated tablet containing trypsin, chymotrypsin and ribonuclease—with proteolytic activity equivalent to 20 mg of crystalline trypsin — has been introduced as a therapeutic tool for the treatment of inflammation, edema, hematomas and pain. The enteric coating of the tablet permits the passage of the contained proteolytic enzymes through the stomach to be released in the upper gastrointestinal tract.

Intestinal absorption of trypsin was demonstrated by Martin e tal[4] and confirmed by Bogner et al.[5] They placed radioactive iodine tagged trypsin into an isolated section

*Professor of Surgery and Director of Medical Education, New York Polyclinic Medical School and Hospital.

of animal intestine and determined its absorption into the circulating blood.

In this study the effectiveness of orally administered trypsin in enteric coated tablets, for the treatment of traumatic injuries, was evaluated. An attempt was made to evaluate its action in the limitation of the reaction to injury as compared with controls. The conditions treated include "black eyes," bruises, hematomas, sprains, fractures and thrombophlebitis.

Method

In the severely injured patients treatment was started with intramuscular injections of crystalline trypsin—2.5 mg in 0.5 cc—two doses the first day; thereafter the enteric coated tablets—2 tablets each six hours for three doses daily. Most of the patients were hospitalized and routine observations were made by the physician. Antibiotics were not given except where infection was present. Bacteriologic studies determined the antibiotic to be used in each case when indicated.

Results

"Black eyes," bruises and hematomas suffered by individuals engaged in contact sports, and occurring in patients following rhinoplasty, thyroidectomy and neck dissection, were treated with orally administered enteric coated trypsin tablets—two tablets each six hours—to study the resolution of extravasated blood. Ordinarily it takes about 10 days for the swelling and pigment to resolve. After treatment with "oral trypsin" in 140 patients in this category, results were good in 120 cases and equivocal in 20 cases. Good results constitute those cases in which swelling and pain disappeared in 24 hours and the process resolved in 72 hours. Furthermore, the color changes in the ecchymosis in the skin was different—with the rapid appearance in 24 hours of a pink-red color rather than the gun-metal blue-black seen in the untreated ecchymosis.

Vestiges of subconjunctival hemorrhage may remain for 4-5 days. The swelling around soft part injuries disappears more rapidly than in the untreated cases. Marked subcutaneous edema and hemorrhage after rhinoplasty, thyroidectomy and neck dissections showed remarkable resolution in 24 hours. Three patients who had intraocular hemorrhage due to trauma showed resolution of the hemorrhage in three to four days.

Swelling and Hemorrhage Around Sprains and Fractures

Twenty-one patients with sprained ankles were treated with orally administered enteric coated trypsin as an adjunct to conventional treatment. Of these 21 patients, 17 had a satisfactory response. There is great advantage in keeping the swelling down at the site of a sprain. It permits palpation of bony landmarks with subsequent greater ease in following the progress of healing within the joint. Since the pain in these sprains is due to hemorrhage into the ligaments and synovia at the site of attachment to bone and muscle, trypsin therapy causes a rapid reduction of pain as compared with untreated controls.

In two cases of hemarthrosis of the knee joint, treatment was started with one injection of 2.5 mg crystalline trypsin intramuscularly, then continued with 2 enteric coated trypsin tablets every six hours for 72 hours. Swelling and pain in these cases were reduced significantly in 24 hours, and gone in 72 hours.

Eight cases of fractures complicated by hemorrhage and swelling around the fracture site were treated in the manner described above. Responses similar to those described above were obtained in seven of the eight patients treated. This rapid reduction in swelling permitted more accurate immobilization of the bones in these fractures and possibly better approximation of the bony fragments.

Acute Thrombophlebitis:

In fifteen cases where acute thrombophlebitis was encountered, ten patients demonstrated a forty-eight hour response to

TABLE I

Clinical Condition	*Number of cases*	*Good Results*	*Equivocal Results*
Black eyes, bruises, hematomas	140	120	20
Sprained Ankles	21	17	4
Hemarthrosis knee joint	2	2	0
Fractures with marked swelling	8	7	1
Thrombophlebitis	15	10	5

oral trypsin treatment. The remaining five patients were treated with intramuscular injections of crystalline trypsin and were free within 72 hours.

The response to the clinical application of trypsin in enteric coated tablets, as used in this study are tabulated in Table I.

Discussion

The mechanism of trypsin action has not been definitely established. It has been suggested[6] that the lytic action of this enzyme removes protein barriers and facilitates drainage of the inflamed area; thus restoring biologic continuity and local tissue homeostasis.

It was determined[7] by the use of "tagged trypsin" that the parenteral route provided blood levels of trypsin of a greater magnitude and duration than that obtained by the buccal or intestinal route of administration of the trypsin.

Laboratory studies[8] suggest that, following parenterally given trypsin, there is correction of a proteolytic enzyme-protein macromolecular substrate imbalance in the area of local tissue injury. This is followed by a reduction in the viscosity of edema fluid,[9,10] purulent exudates and lymph, with rapid dispersal of necrotic debris.

A concept has been advanced[11] suggesting that "Trypsin administered intravenously or intramuscularly acts by its transfer to the inflammatory site. The concept of plasmin activation at the site of injection no longer seems feasible, since no detectable differences in blood plasmin concentration have been found. At the site of inflammation, trypsin functions as a depolymerase. It may also cause plasmin activation. The key to the action of trypsin in an infiammatory reaction relates directly to the restoration of biological continuity, to the restoration of circulation, and thereby, the prevention of further cellular damage and death."

Whatever the mechanism of trypsin action, it is the physician's duty to make every effort to assist nature to do her part adequately and completely. The physician should institute those measures which will provide an adequate blood supply to the affected area and remove all "road blacks" to healing.

Conclusion

Orally administered trypsin in enteric coated tablets (Orenzyme) used either alone or in conjunction with crystalline trypsin (Parenzyme A) given intramuscularly has been found to be an effective therapeutic agent in the treatment of inflammation, edema and pain resulting from trauma, hemorrhage and/or infection.

REFERENCES

1. Menkin, V.: New Concept of Inflammation. American Lecture Series, Springfield, Mo., Charles C. Thomas, 1948, p. 82.
2. Moser, K. M.: Medical Progress—Intramuscular Injection of Trypsin: Its Value as a Thrombolytic and Anti-Inflammatory Agent. N. Eng. Jour. Med., 256:258-263, 303-309, Feb. 7-14, 1957.
3. Martin, G. J.: Clinical Enzymology. Little, Brown & Co., Boston, 1958.
4. Martin, G. J., Brendel, R. and Beiler, J. M.: Absorption of Enzymes from the Intestinal Tract. Am. J. Pharm., 129: 194-197 (June) 1957.
5. Bogner, R. L., Edelman, A. and Martin, G. J.: In Vivo Observations with Radioactive Trypsin. Arch. Int. Pharmacodyn., CXVIII, No. 1-2, 1959.
6. Martin, G. J., Brendel, R. and Beiler, J. M.: Mechanism of Anti-Inflammatory Action of Trypsin. Am. J. Pharm., 127:125-128, April, 1955.
7. Martin, G. J., Bogner, R. L. and Edelman, A.: Further in Vivo Observations with Radioactive Trypsin. Am. J. Pharm., 129:386-392, Nov., 1957.
8. Innerfield, I.: Proteolytic Enzymes and Subsidence of Chemically Induced Inflammation. Surgery, 39:426-433, March, 1956.
9. Cohen, H. Graff, M. and Kleinberg, W.: Inhibition of Dextran Edema by Proteolytic Enzymes. Proc. Soc. Expt'l. Biol. & Med., 88:517, April, 1955.
10. Beiler, J. M., Moss, J. N. and Martin, G. J.: Inhibition of Edema by Parenteral Trypsin. Proc. Soc. Expt'l. Biol. & Med., 89:274, 1955.
11. Martin, G. J.: Trypsin—The Pharmacology of the Drug. Expt'l. Med. & Surg., 13:157, June, 1955.

PROTECTION

FOR THE NEPHRECTOMIZED PATIENT

ROBERT S. SEEHERMAN, M.D.*

The idea for this protective kidney device was evolved as a result of an automobile accident in which the author was injured. A nephrectomy had been performed three years previously for a congenital malformation of the ureter which resulted in a hydronephrotic pyonephrosis. Since general practice requires many hours of driving during variable weather conditions, the thought of a protective device adapted to fit snugly to the side of the remaining kidney would be a comforting prophylactic approach.

The application of the above idea was not only for the author's benefit but for all individuals following nephrectomy. The group would include salesmen, truck drivers, construction workers and all others using vehicles in the pursuit of their occupation. Still another class would be those engaged in sports, such as iceskaters, skiers, basketball players who are prone to injury, especially in the flank area.

The device is basically a shield of aluminum which is light-weight but extremely strong and resistant to external force. The aluminum is covered with a washable plastic and the sharp edges with foam rubber. After the malleable shield is fitted to the desired size, two elastic straps are attached and encircle the waist. Anteriorly, it extends three to four inches lateral to the bid-line and posteriorly, it meets the vertebral column.

*Assistant to the Medical Department Delaware, Memorial, St. Francis and Wilmington General Hospitals.

Since injury to the remaining kidney could be fatal to the "nephrectomee," a protective kidney belt has been described as a measure to insure the wearer against trauma.

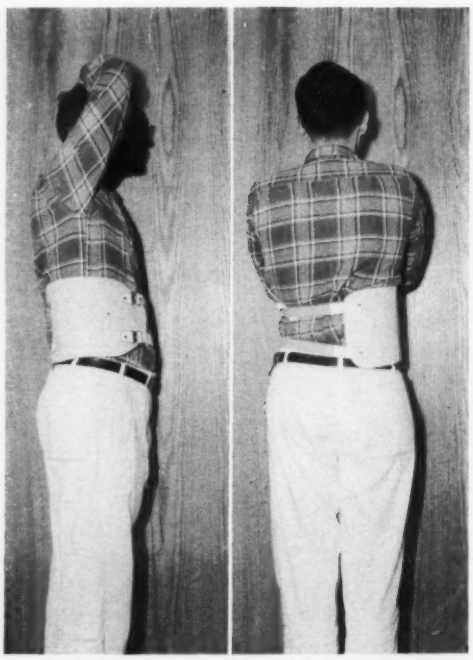


Figure 1 shows the device which fits under or over the clothing. If desired, it may be worn only while in the vehicle.

SYSTEMIC TREATMENT of the SYMPTOMS of CORYZA

AND OTHER COMMON UPPER RESPIRATORY DISORDERS

● The common cold is an important factor affecting productivity. Treatment should be guided towards returning the patient to work as promptly as possible.

AUBREY C. SMOOT, M.D.
ALBERT J. WILDBERGER, M.D.

Among the many charges laid at the door of the common cold is America's involvement in World War II. In March, 1942, President Roosevelt, in a letter to Fred Kent, a prominent banker, made these comments: "*Let me tell you something terrible. The Japanese would never have attacked the United States had it not been for the existence of the common cold . . . If, since the defense program started, we in the United States had not lost sixty million man-days through the scourge of Satan, called the common cold, we could undoubtedly have had enough planes and guns and tanks to overrun Europe, Africa, and the whole of Asia. Take good care of yourself. Don't go on strike and for God's sake don't catch a common cold.*"* To this impressive accusation, add the estimate that an annual loss of 5 billion dollars may be charged to this disease and the "infamous" nature of this "scourage of Satan" becomes apparent.

F.D.R. was writing with tongue in cheek, but there is no doubt that the symptoms of a cold are distressing and sometimes incapacitating. In addition, one symptom of a cold, the nasal exudate, provides a protein-rich medium for the growth of secondary, and potentially dangerous invaders.** Because recently introduced oral nasal decongestants seemed to offer comfort to suffers of the "incurable" common cold, including a reduction in their excess nasal secretions, we recently evaluated one of these preparations in the symptomatic treatment of patients with colds or cold-like symptoms.

The preparation was a combination of an anticholinergic secreto-inhibitory agent (isopropamide iodine, 2.5 mg.), a vasoconstrictor (phenylpropanolamine, 50 mg.), and an antihistimine (chlorprophenpyridimine, 8 mg.), in a capsule designed to provide control of symptoms for approximately 12 hours. This combination was chosen because its components were fairly well known to us and unlike other such preparations, it contained an anticholinergic. The patients were selected on the basis of nasal obstruction and discharge, regardless of diagnosis. In all, 74 patients, ranging in age from 8 to 73 years (average: 37) were treated during the three months we evaluated the drug combination. Diagnosis included upper respiratory infection (29 patients), allergic rhinitis (14 patients), bronchitis (5 patients), pharyngitis with post-nasal drip (2 patients), and bronchial asthma (3 patients). Twenty-one other

*Fabricant, Noah D.: Franklin D. Roosevelt, The Common Cold and American History, *Eye, Ear, Nose and Throat Monthly*, 37 (3): 179-185, March 1958.

**Farmer, Donald F., Oral Therapy in Respiratory Tract Disorders, *Clinical Medicine*, 5 (9) 1183-1187, September 1958.

patients had chronic sinusitis, and complained of either constant or periodic sinus headaches. Some patients had a combination of disorders.

All patients had congestion of the upper respiratory tract, (as one patient described it, "a head full of cement"), inflamed or pale mucous membranes, and some nasal discharge; in approximately half, the discharge was purulent. The turbinates were inflamed or injected in 69 patients, the conjunctiva was red and swollen in 21, and 6 had nasal polyps.

Most patients were instructed to take one capsule of the drug combination every 12 hours, but four got better relief with one capsule every 8 hours. Systemic antibiotics were used where necessary, but this did not interefere with the evaluation, for any symptomatic relief caused by the preparation being tested was expected rapidly, before antibiotics could begin to have an effect. Four patients with bronchitis, 3 with severe colds, and one patient with sinusitis received a combination of expectorants, suspended in sesame oil. Treatment was continued for from 3 to 27 days, and averaged 7 days. Smears were made from the nasal secretions of eleven patients with allergic rhinitis, and eosinophil and neutrophil counts were taken to confirm the diagnosis of allergy and to determine if any infection were present. The test was to be repeated at 3-day intervals to provide a rough guide to the patient's progress.

Results

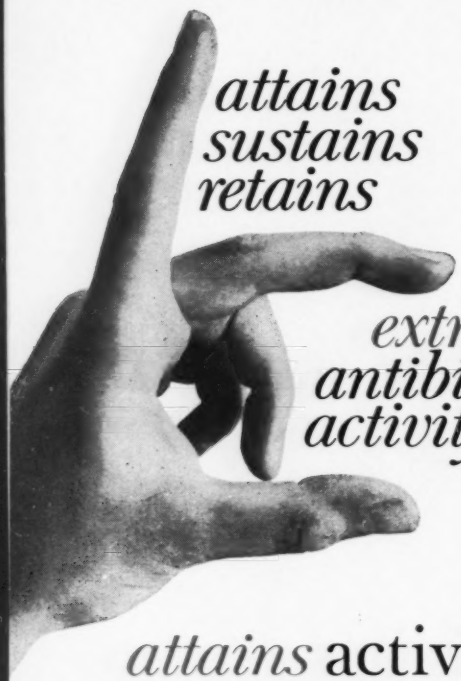
The table details the improvement seen in terms of significant signs and symptoms. Generally, nasal stuffiness and discharge were sharply reduced or eliminated, the turbinates became less swollen, the mucosa regained its normal color and thickness, and the conjunctiva, if inflamed, appeared less irritated and swollen. Sinus headaches were relieved in 18 out of 21 patients. Five cases of nasal polyps, however, showed little improvement. If relief was to be forthcoming, it was usually noticeable within 45 minutes, always within one-and-a-half hours, and it continued all day. Patients who had been particularly "clogged up" and hyper-secretive in the morning, and had been advised to take a capsule upon retiring, reported a marked absence of nasal discharge and stuffiness when they woke up.

In all, only 6 patients experienced little or no clinical or symptomatic relief; of these 6, one had a severe upper respiratory infection, one had pharyngitis, exacerbated by a post-nasal drip and the temperature extremes of his outdoor job, and one had allergic rhinitis with a severe super-imposed infection. Three other patients had severe chronic sinusitis with sinus headaches; they obtained no relief from pain until given codeine or darvon.

Of the 29 patients with uncomplicated upper respiratory infections, 21 showed complete improvement, 7 substantial improvement, and one little improvement. This last patient received expectorants, as did two others in the group. During her five days on the drug combination, she continued to have a purulent nasal discharge and inflamed nasal mucosa, although her congestion was somewhat relieved. Many of the patients in this group were curious as to how a capsule had cleared up their nose and reduced their copious nasal discharge.

Of the 14 patients with uncomplicated allergic rhinitis, 4 experienced complete relief, 9 sbstantial relief, and one little relief. This last patient had a severe concomitant infection, as evidenced by the purulence and high neutrophil count of her nasal discharge. In her case, the combination of drugs was discontinued after three days because of an "upset stomach." Corticosteroids or specific antigen vaccines were not necessary in any patient.

Of the 21 patients with sinus headaches, 18 experienced complete relief from pain, probably because the drug combination reduced the inflammation of their sinus membranes and relieved pressure by opening sinus ostia. These 18 patients also exper-



attains
sustains
retains

extra
antibiotic
activity

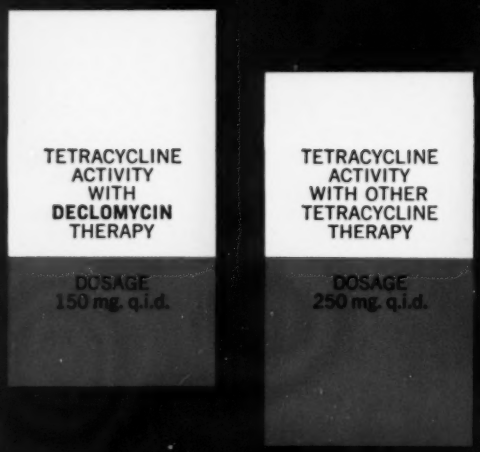
DEC

attains activity levels promptly

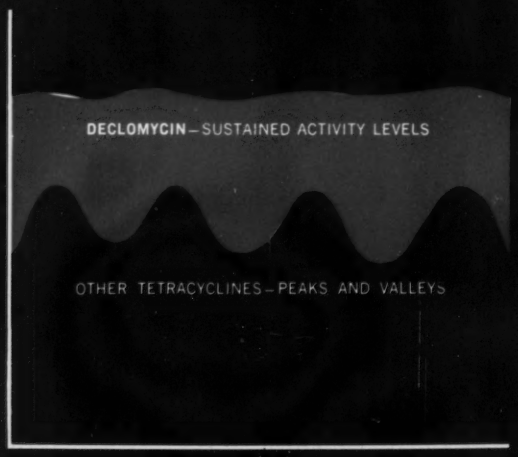
DECLOMYCIN Demethylchlortetracycline attains—usually within two hours—blood levels more than adequate to suppress susceptible pathogens—on daily dosages substantially lower than those required to elicit antibiotic activity of comparable intensity with other tetracyclines. The average, effective, adult daily dose of other tetracyclines is 1 Gm. With DECLOMYCIN, it is only 600 mg.

sustains activity levels evenly

DECLOMYCIN Demethylchlortetracycline sustains, through the entire therapeutic course, the high activity levels needed to control the primary infection and to check secondary infection at the original—or at another—site. This combined action is usually sustained without the pronounced hour-to-hour, dose-to-dose, peak-and-valley fluctuations which characterize other tetracyclines.



POSITIVE ANTIBACTERIAL ACTION



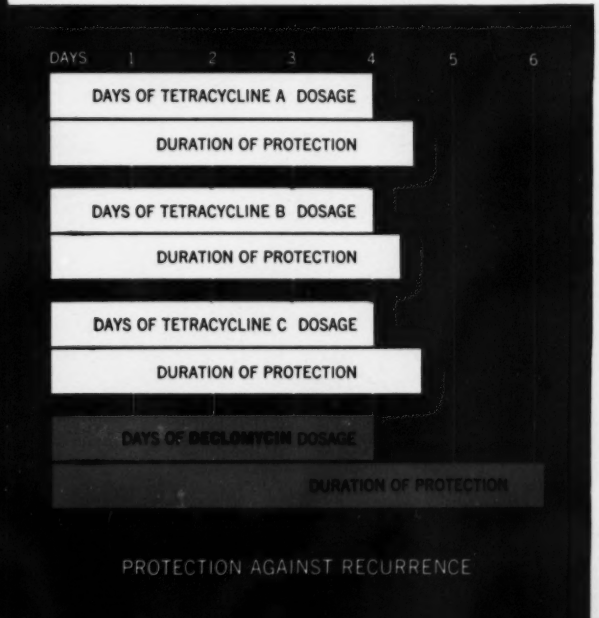
PROTECTION AGAINST PROBLEM PATHOGENS

LOMYCIN®

DEMETHYLCHLORTETRACYCLINE LEDERLE

retains activity levels 24-48 hrs.

DECLOMYCIN Demethylchlortetracycline retains activity levels up to 48 hours after the last dose is given. At least a full, extra day of positive action may thus be confidently expected. The average, daily adult dosage for the average infection—1 capsule q.i.d.—is the same as with other tetracyclines...but **total** dosage is lower and duration of action is longer.



CAPSULES, 150 mg., bottles of 16 and 100. **Dosage:** Average infections—1 capsule four times daily. Severe infections—Initial dose of 2 capsules, then 1 capsule every six hours.

PEDIATRIC DROPS, 60 mg./cc. in 10 cc. bottle with calibrated, plastic dropper. **Dosage:** 1 to 2 drops (3 to 6 mg.) per pound body weight per day—divided into 4 doses.

SYRUP, 75 mg./5 cc. teaspoonful (cherry-flavored), bottles of 2 and 16 fl. oz. **Dosage:** 3 to 6 mg. per pound body weight per day—divided into 4 doses.

PRECAUTIONS—As with other antibiotics, DECLOMYCIN may occasionally give rise to glossitis, stomatitis, proctitis, nausea, diarrhea, vaginitis or dermatitis. A photodynamic reaction to sunlight has been observed in a few patients on DECLOMYCIN. Although reversible by discontinuing therapy, patients should avoid exposure to intense sunlight. If adverse reaction or idiosyncrasy occurs, discontinue medication.

Overgrowth of nonsusceptible organisms is a possibility with DECLOMYCIN, as with other antibiotics. The patient should be kept under constant observation.

LEDERLE LABORATORIES
A Division of
AMERICAN CYANAMID COMPANY
Pearl River, New York

IMPROVEMENT IN PHYSICAL SIGNS AND SYMPTOMS

Sign or Symptom	*Number of Patients*	*Patients Who Were, On Their Final Visits: Improved*		*Unimproved*	
		Number	*%*	*Number*	*%*
Pale or Inflamed Mucosa	74	62	83.8	12	16.2
Polyps	6	1	16.7	5	83.3
Inflamed or Edematous Conjunctiva	21	20	95.2	1	4.8
Inflamed or Injected Turbinates	69	66	95.7	3	4.3
Congestion	74	70	94.6	4	5.4
Purulent Nasal Discharge	36	22	61.1	14	38.9
Clear Nasal Discharge	38	29	76.3	9	23.7

ienced either complete or substantial relief of nasal discharge and congestion.

These results appear to compare favorably with what one would expect from no treatment or from treatment with topical drops or sprays. With no treatment, nasal discharge or congestion gradually abates as the cold or allergic reaction runs its more or less prolonged course.

A more serious disorder, such as sinusitis, can worsen. Topical medications, on the other hand, give some relief, but it is usually incomplete, for these drugs cannot reach all areas of the mucosa or penetrate thick mucoid coverings. In addition, they usually offer relief for only short periods, and if used too frequently may irritate the mucosa and cause more swelling.

Although the preparation evaluated gave consistent and long-acting relief, it is, of course, symptomatic therapy, and will not shorten the duration of either a cold or other disorder. The average length of treatment here, 7 days, seems to verify the old saw that a 7-day cold will, with treatment, last a week. The patients we treated were grateful for the symptomatic relief they did obtain, and several of them mentioned that they preferred these capsules because they "worked better" and were more convenient than either drops or sprays. In addition, the elimination of profuse nasal exudate perhaps protected these patients from secondary bacterial and viral infections. Only one patient developed a full-blown bacterial infection.

The eosinophil and neutrophil counts made in 11 patients confirmed the diagnoses of an allergic condition, and indicated the existence of some super-imposed infection in 4 patients; however, only 9 patients had any nasal discharge for a second test, and only 5 even returned for a third test. The test was therefore a good diagnostic aid, but of only limited value as an indicator of improvement. There was an apparent correlation between the clinical improvement that occurred in these patients and a drop in the eosinophil and neutrophil counts, but the number of patients involved is obviously too small to justify any general conclusions.

Side effects occurred in only one patient, the woman with an "upset stomach"; this disappeared when the medication was withdrawn. Drowsiness was not reported by any of the patients.

Summary And Conclusions

A new anticholonergic-decongestant preparation was given to 74 patients with upper respiratory infections, allergic rhinitis, sinusitis, bronchitis, pharyngitis with post-nasal drip, and bronchial asthma. Sixty-eight patients experienced complete or substantial relief from nasal discharge and congestion, sinus headaches, and swelling and inflammation of mucous membranes and turbinates. One patient reported side effects of an "upset stomach." This preparation not only provides symptomatic relief, but also seems to help prevent secondary infections, and is acceptable to patients.

Obituaries

GERALD O. POOLE, M.D.
1905 - 1960

Dr. Poole died September 24th in Wilmington, his native city. After taking his premedical training at the University of Delaware, he received his medical degree from Hahnemann Medical College in 1931. Following internship at the Homeopathic Hospital of Delaware and Peninsula, now the Memorial Hospital, he entered the general practice of medicine in Wilmington. From 1937 until 1940 he studied otolaryngology at the Graduate School of Medicine of the University of Pennsylvania as well as at other institutions. From 1945 until recently, he practiced his specialty in Wilmington. He was certified by the American Board of Otolaryngology and was a Fellow of the American Academy of Ophthalmology and Otolaryngology as well as the International College of Surgeons.

During World War II he served in the Medical Corps of the Navy as a Lieutenant Commander and received an official commendation for his meritorious service in controlling an epidemic of food poisoning on the eve of the Normandy invasion.

President's Page

"GLADLY WOULD HE LEARN AND GLADLY TEACH," Chaucer

The first stipulation in the Oath of Hippocrates notes the obligation of the physician in the continuity of medical education . . . "to regard him who teaches this art equally with my parents, to share my substance, and, if he be in need, to relieve his necessities, to regard his offspring equally with my brethren; and to teach his art if they shall wish to learn it, without fee or stipulation, to impart a knowledge of precept, by lecture, and by every other mode of instruction to my sons, to the sons of my teacher, and to pupils who are bound by stipulation and oath, according to the law of medicine . . ."

A college president, Louis T. Benezet, views the physician as a teacher of his own profession, a teacher of his patients, and a teacher of his community. Medical education is a continuing process, occupying a lifetime for the individual and centuries for succeeding generations. A committee of a medical faculty reported, "In modern times, the constituent branches of medical science are so expanded, that they are not acquired by any physician in a lifetime, and still less by a student during his pupilage." This statement was not written yesterday. It was written in 1850!

Benezet remarks " . . . of all professional men, the doctor most needs to be a person of broad human understanding, sensitive self-insight, sound knowledge of our societal structure; a person equipped to speak knowledgably with his patients and fellow citizens on ethics and values . . . the American physician is potentially the most powerful person in society in the ability to affect human attitudes at crucial times. His strength to produce change is unrivalled in the relationship of men with men . . .

"As he labors through the maze of modern medical science, combining idealism with pragmatic skill, he remains one of the strongest potential teaching forces we could ask towards solving many human problems of tomorrow."

Reference: Benezet, Louis T.: The Physician As Teacher, The Pharos, Alpha Omega Alpha, Pg. 24-33, May, 1957.

Samuel C. McGee

Editorials

THE HIGH COST OF DIFFERENTIAL DIAGNOSIS

EDWARD B. LEWINN, M.D.

During World War II, there were prominently displayed through-out airports, railroad stations and bus terminals placards asking "Is This Trip Necessary?" The question reflected the tremendous stress imposed on the transportation facilities of this country inducted by the high national metabolic rate inherent in war activities. Today a similar situation is present in medical economics, particularly with regard to voluntary hospitals and the insurance carriers which are inevitably involved in their economic welfare, Blue Cross being especially affected. These hospitals are often dependent on financial aid from public funds, whether state, municipal or charitable. Those hospitals which are not medical school or university sponsored find it impossible to make ends meet and commonly operate at a deficit.

In many areas of the United States Blue Cross Plans are raising rates to levels which will ultimately nullify their effectiveness in providing inexpensive coverage for hospitalization which the public can afford. The reasons for this situation are both interesting and disturbing. They have been discussed before by many other people in many other areas. Mentioned as responsible are our own inflationary economy and the overuse of medical facilities in bed occupancy, diagnostic procedures, and therapeutic measures, particularly drugs.

It is on the diagnostic procedures that fact finding committees of the medical staffs of voluntary hospitals have placed much of the emphasis for the need for curtailment in order to cut hospital costs. This is particularly true in areas in which the hospital house staff is given a rather free hand "under supervision" in order to enrich their training. Of course this refers primarily to the ward services and, inevitably, the medical wards.

Hospital committees attempting to curb over-utilization of facilities commonly stress prominently in their recommendations the need for curtailing the freedom of the house staff with regard to diagnostic studies. Unfortunately, the solution is not so simple. Such curtailment cannot be accomplished by decree. It requires careful training in disciplined thinking which, after all, is properly part of the education of every intern and resident. If we of the attending staff are to teach such disciplined thinking we must first become facile in its practice ourselves. In a people who somehow feel that if you spend enough money medically you will come up with the right answers, it is easy to lose sight of the costs involved as one effortlessly writes the order for a "liver profile."

An Editorial reprinted from the *Journal of the Albert Einstein Medical Center*, January, 1960.

We must begin with ourselves first by justifying our own procedures and then by demanding of the house staff that they justify theirs, employing the disciplined thinking which will develop clinical judgment. The average intern or resident will commonly apply logic to his arguments which would put to shame Plato's "Republic" if they were not so specious. It is our part not to forbid arbitrarily but to take time and patience in discussion and reasoning as we strive for a degree of maturity in these young physicians.

There should be mentioned in passing the shadow of the medico-legal aspects of any given case which, while vague in the minds of the house staff, add some terror to the prospect of private practice. In this connection the doctrine of the best accepted procedure must be modified by careful judgment by recognition of the calculated risk and by the courage to differ with the conventional when necessary. Much of our economic medical problem comes from indifference, from lack of self-discipline and from a considerable degree of regimentation.

Only by including economic realism in the training of interns and residents can we teach ourselves and the practicing physicians of the immediate future how to ask and to answer the question "Is This Laboratory Study Necessary?"

AVIATION MEDICAL EXAMINERS IN DELAWARE

Physicians in Delaware authorized to perform physical examinations of airmen for the Administration of the Federal Aviation Agency are listed in their manual as follows:

Bridgeville

Beckert, Dr. Rudolph H., Cedar & Laws Streets — 1889-07-1

Laurel

Dickey, Dr. Robert L., 103 Clayton Avenue — 1909-07-2

Wilmington

Durham, Dr. J. Richard, 623 Delaware Avenue ATR — 117-07-04

Miller, Dr. Herman S., 609 Washington Street ATR — 116-07-3

Walsh, Dr. James P., 623 Delaware Avenue — 4182-07-4

All examiners are authorized to conduct physical examinations for Second Class and Third Class categories; "ATR" denotes further authorization to examine First Class airmen.

Physicians in Delaware interested in obtaining authorization to perform this important work in aviation and public safety should make application to: FAA Regional Flight Surgeon, N.Y., International Airport, Jamaica, Long Island, N.Y.

In Brief

Low Toxicity Of Lipoic Acid

Lewis B. Flinn, M.D., and C. Anthony D'Alonzo, M.D., have been making a study of lipoic acid, which tends to lower the sugar level in blood and may have some value as an insulin substitute or adjunct in treating diabetes.

Virus Cancer Study

A grant of $16,000 has been made by the National Institutes of Health to the University of Delaware for research in the etiology of avian skin and muscle leukosis; Dr. M. S. Cover, is the investigator.

New Regional Hospital

Organization of the medical staff has been started for the new Riddle Memorial Hospital in Media, Penna. Construction of the main building will begin in the spring, and the first unit will provide about 145 beds and 40 bassinets. Mr. Marvel Wilson, chairman of the governing body's' Medical Committee, has asked that physicians from outside Delaware County who are interested in hospital appointments, address their requests for preliminary information to the temporary hospital offices: 5 West Front Street, Media, Penna.

Fund Established

The Board of Regents of the American College of Chest Physicians has established a relief fund for Cuban members of the College who have been exiled temporarily from their country. The Board voted to contribute $5,000 to launch the fund; further contributions are being solicited. The Cuban Chapter, founded in 1940, has now 74 members.

New Officers

Joseph J. Davolos, M.D., was installed as the new president of the Delaware Academy of General Practice, succeeding Harry Taylor, M.D.; Marjorie Conrad, M.D., president-elect; Drs. William D. Shellenberger and Glenn M. Van Valkenburgh, vice-presidents; Frank W. Baker, M.D., secretary; Mildred B. Forman, M.D., treasurer . . . Martin B. Pennington, M.D., was named Delegate to the American Academy of General Practice and Frank Skura, M.D., Alternate . . . Andrew M. Gehret, M.D., took the office of president of the New Castle County Medical Society, succeeding Allen D. King, M.D.; Daniel J. Preston, M.D., was named president-elect; Edward S. Parvis, M.D., vice-president; Harry J. Repman, M.D., secretary; and John W. Alden, M.D., treasurer . . . Norman L. Cannon, M.D., was named to the Board of Directors and Leonard P. Lang, M.D., was elected Councillor . . .

Carl G. Pierce, Jr., M.D., Rehoboth, was elected president of the Sussex County Medical Society; Joseph A. Elliott, M.D., vice-president and Robert F. Lewis, M.D., Seaford, secretary . . .

Installation

Harry Taylor, M.D. handing the presidential gavel to Joseph J. Davolos, M.D. at the Annual Meeting of the Delaware Academy of General Practice, on December 10, 1960. The banquet was held in the Gold Ball Room of the Hotel duPont. Seated are Marjorie E. Conrad, M.D., president-elect, and Rabbi Jacob Kraft of Wilmington.

Personal Glimpses

Drs. Arthur J. Heather, Alfred R. Shands, Jr., Joseph M. Barsky, Jr., Henry M. Stroud, James A. Flaherty, William Thomas Hall and Harold A. Tarrant have been appointed to serve as members of the Medical Advisory Committee for the New Castle County Chapter of the National Foundation's March of Dimes . . . Lemuel C. McGee, M.D., appointed chairman of the Social Security Administration's Medical Advisory Committee, U.S. Department of HEW . . . Joyce Pierson, M.D., conducted the December monthly session of the Marshallton Well-Baby Clinic . . . Victor D. Washburn, M.D., was elected to honorary membership of the Delaware State Chamber of Commerce . . . Albert Ingram, Jr., M.D., is chairman of the Professional Advisory Committee of the Mental Health Association . . . Richard W. Tobin, M.D., gave an informative illustrated lecture on cancer to the members of Women of the Moose, Seaford . . . Floyd I. Hudson, M.D., announced that the State Board of Health has approved a resolution to create a division of Dental Health for the purpose of public education in personal dental care . . . Patricia Ann Crowther, M.D., a Wilmington psychiatrist who has been a British subject, became an American citizen in the U.S. District Court naturalization ceremony last month . . .

Dine And Wine

Dry white wine was found to boost the absorption of essential food fats in patients in whom part of the stomach had been removed due to ulcers or cancer, according to Theodore L. Althausen, M.D., University of California Medical School.

Auxiliary Affairs

OUR VACATION ON A HOUSE BOAT

Mrs. Douglas Gay

Last winter a clipping from a New York paper sent to one of our friends, extolling the beautiful Rideau Canal, stimulated our interest in a vacation on a house boat.

We discovered that the Rideau is a 123 mile waterway in Ontario, connecting the lakes and rivers between Kingston and Ottawa, by a series of 47 locks, dams and canals. It was built for military purposes about 130 years ago. But since 1935 it has been used only by pleasure craft. To this day the locks are hand operated. Along the sides are guide chains, that help to keep the craft from swinging, while the lock is in operation.

We secured our fishing license, anticipating that this was the time we would really catch some beautiful specimens, as described in the folders. At the end of our trip we calculated that the few small fish we caught, cost us about three dollars a pound.

When we saw the "Hasta la Vista" for the first time it looked like a house trailer on a small barge, the four tires hanging over the sides as fenders added to the illusion, and led some one to ask if we had driven it over the roads. Thirty-two feet of boat was very comfortable for the four of us. She was not fast. Eight knots was fast enough, and matched our mood for relaxing on deck, and enjoying new vistas at every turn. We could stock enough food for several days, but usually liked the adventure of dinner ashore in the small villages along the way.

We left Alexandria Bay on a sunny, cool afternoon. We sat on deck pleased with ourselves, as we cruised the St. Lawrence tthrough the Thousand Islands. At night the full moon made the channel markers clearly visible. We decided to visit friends in a trailer camp at Sand Bay, N.Y. In response to our signal, a tremendous bonfire guided us to the mooring where we spent the night, after a brief visit ashore. A house boat was an oddity, and we held open house for our friends and their neighbors. At noon we were on our way, and cleared Canadian Customs. Our first lock was at Kingston Mills, four in flight, lift 44 ft. This was the first of many locks we would navigate. After dinner on board the second night a terrific rain and windstorm arose, the anchor dragged, and we were washed onto the rocks. The dinghy was lowered, the anchor pulled up, and we kedged into deeper water. The rest of the night was one of watching, to see if the anchor would hold. After this experience we docked at marinas, or public docks along the canal.

We liked to get up early, and retire early. The day varied according to our choice, fishing, exploring the shore, sun bathing, or swimming. The lakes or canals inspired us as to the program. The scenery forever changing, a lake spiked with tree stumps, a narrow channel abundant with marsh weeds, loosestrife, and pond lillies. We were delighted to see pileated woodpeckers, and a few loons. It is more fun if one does not set a rigid schedule. If a location is pleasing, just stop an extra day for loafing, swimming, or just shopping. The Rideau cruise means a restful, smooth water voyage. We recommend it, as it is a tranquilizer in itself.

PROCEEDINGS OF THE

HOUSE OF DELEGATES*

MEDICAL SOCIETY OF DELAWARE

(Victor D. Washburn, M.D. had just presented his report of the Delaware Joint Council to Improve the Health Care of the Aged.)

PRESIDENT MARVIL: Thank you, Dr. Washburn. I am sure that we all realize how important this matter is that Dr. Washburn has spoken to us about, also that we must realize what an enormous amount of work Dr. Washburn has done and how good a job he has accomplished. I think in the motion of acceptance that we should include a vote of thanks to Dr. Washburn.

The motion was made, seconded and carried with a round of applause.

PRESIDENT MARVIL: We will now have six Liaison reports.

Liaison with Welfare Council of Delaware

Last year Dr. Shands appointed me as representative of the society to the Welfare Council of Delaware. After carefully reading the newsletters sent from the main office and making inquiries about the council, it became obvious that this organization had great potential for promoting good health policies in the state. Their success in organizing for the successful push for fluoridization of the water of Wilmington is an example of this. However, I could not find that there was any physician on the Board of Directors, at the policy-making level. Therefore, both by discrete inquiry and a little pressure it is now possible to report that we have two outstanding members of the medical profession on the Board of Directors, Dr. A. J. Fleming and Dr. L. B. Flinn.

I hope that this will be a good arrangement for the future. As can be seen from the accompanying new set of by-laws established this year by the council, your representative next year should be a member of the council.

Respectfully submitted,
Robert W. Frelick, M.D.

The report was accepted.

Liaison with Delaware Division, American Cancer Society

I would like to present to you for presentation to the Delaware Medical Society at their annual meeting in 1960, the following report of the activities of the American Cancer Society since my last report in 1959.

CA Bulletin of Cancer Progress subscriptions were sent to all physicians, osteopaths and schools of nursing. *Cancer News* was also sent to all physicians and osteopaths. The publication *Cancer* was sent to all hospital libraries and the Delaware Academy of Medicine. Special issues of *Post Graduate Medicine* on the evaluation of early diagnosis of cancer were sent to all hospital libraries. Cancer Source Books for Nurses were sent to all Schools of Nursing and to the School of Practical Nurses at the Brown Vocational School. The Delaware Academy of Medicine received publications and periodicals in the amount of $162.95.

There were 27 film and kinescope showings for student nurses, practical nursing students and lab students. There has been set up for the 4 hospitals in Wilmington, a program of one kinescope per month sent from the National office and left in Wilmington to be rotated through the four hospitals for use of their staffs. This program was started March 1, 1960 and will continue until September 30, 1961.

*Continued from December, 1960 issue.
*The complete report of the Proceedings of the House of Delegates is on file in the Medical Society office and is available to members for reference.

The Delaware Division presented 100 cytologic slides to the Wilmington General, Delaware and Memorial Hospitals.

Cancer displays were set up at the Memorial, Kent General and Delaware hospitals. Displays and literature were also set up at the Academy of Medicine for the radio lecture course.

The Delaware Division also gave one scholarship in Oncologic nursing at the Memorial Hospital in New York City.

In the field of Public Information there were 25 film programs with physician speakers, one program being given in Polish. These 25 programs were given for various clubs and organizations. In the various schools there were 178 film showings and there were distributed, 17 filmstrip kits on *"Challenge to Youth"* and on the *"Teen-age Smoking"* program. (It is the desire of the Cancer society to have before the end of the year, a film strip kit and literature on smoking in every Junior and Senior High School in Delaware.) 25,208 leaflets and 171 posters were also distributed to all schools.

In the field of Business and Industry, 19 Union Headquarters distributed 14,795 pieces of literature and poster displays. In addition, literature was sent to plants already having programs. The program at the National Vulcanized Fibre Company was outstanding. 9 physicians made 19 talks and the film "MAN ALIVE" was shown 19 times. The fibre company also distributed 6,950 pieces of literature through its five plants.

The theaters also cooperated — 8 theatres in Wilmington, 2 in Kent and 5 in Sussex showed Cancer films along with the regular feature. In Rehoboth there was one open showing to 240 women. The State Board of Health reported showing Cancer films 30 times. There were exhibits and displays at the Delaware State Educators Association Meeting; at the 2 State PTA Congresses, and at Delaware State College. During the crusade there were 25 displays in Department Stores and a booth was maintained at the Kent-Sussex Fair for one week in July.

There were established at the University of Delaware, 3 scholarships in biologic sciences, and financial support was given to the Science Fair.

As regards the Professional Service, the Kent County Unit contributes toward the cancer registry at the Milford Memorial Hospital, and the Sussex County Unit contributes toward the Cancer registry at the Beebe Hospital. The Cancer Control Registry of the New Castle County Unit has 9,461 smears on record since February 1, 1959. The State Board of Health has registered not any to date. In this program of registration there are 68 physicians from New Castle County, 11 from Kent and 17 from Sussex, in all, 96 physicians who are collaborating.

The Division has also donated towards the purchase of a Therapeutic Circulator for the Curative Workshop.

Finally the patient service of the Delaware Division of the American Cancer Society assisted 230 patients of which 149 were new applications for this service. Drugs were supplied to 88 patients and 24 patients were aided with their hospital bills. In addition to the above, the Division distributed 35,454 dressings, 1,447 bed pads and 106 bed gowns. Transportation and equipment were also available for those that needed it.

Respectfully submitted,
Oscar N.Stern, M.D.

Liaison with Delaware Chapter, American Heart Association

Herewith is the report in regard to Heart Disease in the State of Delaware.

RESEARCH

$30,000 was channeled directly into 6 research projects. Four of these involved Delaware scientists. These reports by Drs. Reinhardt, Richardson, Kirby and Heather, are available on request to the Delaware Chapter, American Heart Association.

An additional $16,213.41 was channeled into research through the American Heart Association.

PROFESSIONAL PROGRAMS

Dr. Myron Prinzmetal, eminent authority on Cardiac Arythmias, addressed the New Castle County Medical Society as the second annual David Flett duPont Memorial Lecturer.

The Academy of Medicine was again authorized to purchase whatever books, journals or periodicals that they felt were needed to complete the cardiac library.

Residencies in Cardiology were offered in two hospitals in the State.

The teaching aspects inherent in the special clinics, supervised by Dr. Harry F. Zinsser, were made available at 2 hospital locations.

A referral point for service patients with cardiac abnormalities was provided at 3 hospitals in the State.

Six Rheumatic Fever Clinics to supply prophylactic medication for Rheumatic Fever service patients were maintained.

Films showing the latest scientific advantages, latex heart models and recorded lectures with slides, were offered the medical profession.

Literature on specific ailments affecting the heart and circulatory system was provided for patients and physicians.

Modern Concepts and *The Heart Bulletin* were supplied free to doctors and medical students who requested them.

PUBLIC EDUCATION

Films, speakers and literature were provided at more than 45 meetings of groups and organizations.

More than 10,000 pieces of literature were distributed to the public concerning various heart and circulatory ailments and the latest information available on them.

SERVICE

The Cardiac Job Evaluation Unit was maintained to assist in returning cardiacs to employment.

A camp was held for cardiac children between the ages of 8 and 14 who could not otherwise afford or attend summer camp.

Approximately 100 individuals were provided with preventative medication through our six Rheumatic Fever Clinics.

More than 160 patients were offered the services of a cardiac specialist through our three general cardiac clinics.

Eighteen Delaware citizens were provided with vital diagnostic or surgical visits at the hospital of the University of Pennsylvania.

Wheelchairs and oxygen equipment were provided for recuperating patients.

Blood donors were recruited and the drawings arranged for six needy patients about to undergo open heart surgery.

We provided transportation to and from hospitals for needy patients.

Respectfully submitted,
E. M. Krieger, M.D.

Liaison with Mental Health Activities

The fiscal year 1959-60 includes parts of two important periods in mental health. The year 1959 marked the fiftieth anniversary of the National Committee for Mental Hygiene and the ninth anniversary of the National Association for Mental Health, which developed from the earlier committee. By proclamation of the President of the United States, 1960 was designated "Mental Health Year." Mental Health activities in Delaware during 1959-60 have been numerous and varied. They have helped to increase the awareness of the public regarding the problems of mental illness and emotional disturbance and to elicit interest in preventing the conditions as well as in relieving them. Individuals and agencies have contributed significantly to the progress made in mental health in the State.

The election of a Delawarean, Mrs. A. Felix duPont, Jr., to the presidency of the National Mental Health Association is an honor for Delaware. It is also a tribute to Mental Health, both locally and nationally. She was elected to the presidency in November, 1959, at the Ninth Annual Meeting of the National Mental Health Association in Philadelphia, Pennsylvania. She had been a member of the Board of Directors of the National organization for the past seven years. In 1952 she was president of the Mental Health Association of Delaware. During her term of office, the Delaware Association conducted a state wide membership drive. It also formed units to extend public education on mental hygiene. Medical advisory and legislative committees of the Mental Health Association were organized while she was president. As was mentioned in Gilbert Millstein's article published in the May, 1960, issue of Good Housekeeping under the title "A Lady duPont Rolls Up Her Sleeves," Mrs. duPont began her career in mental health as a volunteer in occupational therapy at the Delaware State Hospital a number of years ago. The article included pictures of the Occupational Therapy Shop in which she served.

A number of activities have been organized during the year to strengthen the general understanding of the various facets of mental health and mental illness, emotional disturbance, and mental retardation. The Mental Health Association of Delaware held a Discussion Leaders Training course in Wilmington, Delaware, on November 13 and 14, 1959, to train leaders for groups with similar interests. These leaders were used, to some extent, in the education program of the Mental Health Association.

The Catholic Diocese of Wilmington, the Council of Churches of Wilmington and New Castle County, the Rabbinical Association of Delaware, and the Mental Health Association of Delaware cosponsored "Mental Health and Mental Illness — An Institute for Clergy." At each of the seven consecutive weekly sessions a well qualified psychiatrist discussed a pertinent topic.

A six weeks training seminar was sponsored by the Mental Health Association for social workers of The Child Welfare Department of Public Welfare. The seminar was designed to assist this group of employees to meet the demands of their work more effectively, particularly in rgard to the placement of children in foster homes.

During the year several civic groups have demonstrated their interest in the Mental Health needs of children. Several prominent child therapists have been presented to speak on appropriate topics in this area of concern.

A sub-committee of the State Department of Public Instruction Advisory Council for Exceptional Children sponsored an intensive two weeks workshop at the University of Delaware under the direction of a qualified psychiatrist.

Delaware State Hospital presented for the professional staffs of the three state-supported psychiatric institutions and physicians of the vicinity three outstanding medical lecturers. In October, George B. Kolle, M.D., of the Graduate School of Medicine of the University of Pennsylvania, discussed "The Pharmacology of the Tranquilizing and Antidepressant Drugs." Barbara Fish, M.D., of the Children's Service of Bellevue Psychiatric Hospital, spoke on "Childhood Schizophrenia," in March. In April, Manfred G. Guttmacher, M.D., the Chief Medical Officer for the courts in Baltimore, Maryland, discussed "The Clinical Examination and Evaluation of Criminals."

The booklet, *Mental Illness: A Guide for the Family,* has been distributed by the Mental Health Association of Delaware through the psychiatric hospitals. Many favorite reactions to the booklet have been reported from members of the families of hospitalized mentally ill persons.

Mental Health Week was observed in Delaware May 1-7, 1960. A highlight of the week's activities were the Annual Meeting and Luncheon, which approximately four hundred persons attended. Henry C. Schumacher, M.D., spoke on the topic "When Children Face Emotional Crisis — Are Delaware's Services Adequate."

Several conferences during 1959-60 involved professional personnel from the State as leaders of study groups or as participants. On September 30, October 1 and 2, 1959, representatives from the ten northeastern states attended the North East State Governments Conference on Mental Health, held in Wilmington, with Delaware as the host state. Approximately 120 mental health and Legislative personnel participted in the sessions. The Chairman of the North East State Governments Conference on Mental Health at that time was your mental health liaison. His Excellency, J. Caleb Boggs, Governor of Delaware, and various legislators were present at the annual dinner, at which Senator James Snowden was the toastmaster, and the Honorable Pierre S. duPont, III, was the speaker of the evening. Mr. duPont's address was entitled, Mental Health — A Community Challenge.

Eight Delaware delegates including the State Psychiatrist and Superintendent of the Delaware Mental Institutions, participated in the Spring Meeting of the North East State Governments Conference on Mental Health, held at Stowe, Vermont, on May 25, 26, 27, 1960.

On September 30, 1959, the Delaware League for Nursing Workshop was held at the Delaware State Hospital. This was the largest workshop for the Delaware nurses to date, 120 being registered and participating.

Several members of the staffs of the mental institutions of the State served in key positions in the study groups of the Delaware White House Conference Committee preparatory to the Golden Anniversary White House Conference On Children and Youth in March, 1960. The State Psychiatrist and Superintendent co-chaired Study Group III. His administrative assistant co-chaired Study Group I. These chairmen and the Clinical Director of the Mental Hygiene Clinics were delegates from the State to the 1960 White House Conference.

The sub-committees of the study group on the characteristics and needs of children and youth were chaired by the Clinical Director of the Mental Hygiene Clinics and the Medical Directors of the Governor Bacon Health Center and the Hospital for the Mentally Retarded. These officers, a number of other physicians, other lay and professional persons were members of the study committee and sub-committees dealing with the Mental Health needs of children and youth. A number of them attended the two Delaware White House Conferences and the State follow-up meeting.

Of increasing concern to professional personnel and private citizens as well are the problems associated with aging inasmuch as science and medicine have helped to lengthen the life span while other facets of the culture have been slow to develop the techniques for dealing adequately with the rapidly expanding group of citizens in the population.

Of great significance to the citizens of Delaware is the Candee Building, the new modernly equipped 100 bed facility, opened during the fiscal year at the State Welfare Home and Hospital for the Chronically Ill. It is dedicated to the memory of the Reverend Charles L. Candee and is administered by a well qualified superintendent, C. J. Prickett, M.D., a life-member of the Medical Society of Delaware. This beautifully appointed building makes available for the care and treatment of the aged and chronically ill in this State, many of the newest techniques and procedures of Gerontology.

A pre-conference session on the problems of aging in Delaware was sponsored by the Division of Aging of the State Board of Trustees of the State Welfare Home and the Division of Adult Education of the State Department of Public Instruction and held at the recently dedicated Candee Biulding in May. Attention was given to the mental and physical health needs of the upper age group as well as to other vital concerns.

At the invitation of His Excellency, J. Caleb Boggs, Governor of Delaware, a state-wide Conference on Aging convened at the Candee Building on June 14 and 15, 1960. Group II of the concurrent discussion groups was on Health, Medical Care and Rehabilitation. Your mental health liaison was chairman of this group.

The Welfare Council of Delaware and The Mental Health Association of Delaware assumed joint responsibility for a study of services to emotionally disturbed children in the State. The chairmanship of the central committee of this study is shared by Mrs. A. Felix duPont, Jr., and Mr. Hal Haskell. The preliminary findings in the study were reported briefly by the speaker of the Mental Health Association Annual Luncheon.

The Board of Education for Wilmington this year began a Three-Year Experimental Project on Schools In Changing Neighborhoods. A series of four meetings was held to explore the problems of community leadership in changing communities and to develop more effective educational programs for the children in these areas. At one session boys and girls of the neighborhoods included in the Project participated in the discussion, evaluating the strengths and weaknesses of their communities according to their points of view.

During 1959-60 there have been several significant improvements in the care and treatment of the emotionally disturbed, the mentally ill, and the mentally retarded. The psychiatric staff of the Mental Hygiene Clinics has been expanded. In July 1959, a psychiatrist assumed responsibility for the psychiatric services offered in the Mental Hygiene Clinics of Kent and Sussex Counties. In January, 1960, an additional psychiatrist joined the staff of the New Castle County Mental Hygiene Clinic. During the fiscal year 1959-60 a total of 1,460 patients received service in the daytime Mental Hygiene Clinics of the State. Of this number, 737 were new cases, and 184 were cases which were reopened after having been closed previously.

The Mental Hygiene Evening Clinics at Farnhurst, Stockley, and Governor Bacon Health Center, gave service to 70 adults (45 at Farnhurst, 7 at Stockley, 18 at the Health Center). Of the cases treated at Farnhurst 23 were new cases, 2 were reopened and 20 were continued from the previous year. All 7 of the Stockley cases were new. Seven of the adults receiving outpatient service at the Health Center were new cases. One was a reopened case. In addition to the adults, 30 children were treated in the outpatient clinic of the Governor Bacon Health Center, 29 of whom were new cases and one reopened case. Of the new cases in the Health Center outpatient service, 23 patients under 18 years of age and 3 adults had been in residential treatment previously at the Health Center.

The Clinical Director of the Mental Hygiene Clinics gave psychiatric service four hours a week to children referred to the Division of Child Development and Guidance of the Board of Education for the Wilmington Public Schools.

The Prisoners Aid Society of Delaware in 1959-60 instituted a therapy program for released prisoners to help them adjust to society. The Clinical Director and the Chief Psychologist of the Mental Hygiene Clinics are members of the therapy staff in this program. A psychiatric social worker of the staff of the Veterans Administration Hospital at Elsmere, Delaware, is the third member of the therapy team.

The Governor Bacon Health Center continues to administer to various types of patients with mental health needs. Chief among the services at

the Health Center is the unit for maladjusted children. In 1959-60, 62 children (49male, 13 female) were admitted for the first time to any psychiatric hospital. Nine children (5 male, 4 female) were readmitted during the year. One child, a girl, was transferred from another psychiatric hospital within the state system.

Although the law creating the Governor Bacon Health Center had defined as one of the objectives to treat pre-psychotic and psychotic children, prior to the fiscal year 1959-60, it had been necessary to limit the treatment of pre-psychotic and psychotic children to those who did not need intensive therapy and maximum security. On November 9, 1959, a psychiatric unit for boys was opened at the Health Center. This unit, consisting of two individual rooms, one room with three beds, a ward with five beds, a dayroom area, and bath facilities provides intensive treatment for ten children. A psychiatric unit for girls was opened on February 2, 1960. The girls' unit consists of a large ward of four beds, two single rooms, and day room. Bath facilities are adjacent.

These two units have 24 hour attendant service (three 8 hour shifts). An intensive program is in operation for the acutely disturbed, pre-psychotic, or psychotic children in the units. From the opening date of each unit to the end of fiscal year 49 children (33 boys, 11 girls) have been treated in this special facility.

At the Delaware State Hospital the opening of the Willard Springer, Jr., Building on March 23, 1960, with the transfer of 22 female patients to the Acute Section, added to the facilities of the Hospital a modernly equipped building for the care and treatment of acutely and subacutely ill patients as well as convalescent patients. The building provides accommodations for 175 patients, both male and female, in rooms with one, two, and four beds. A well equipped gymnasium, workshops, and rooms for occupational therapy, beautifully decorated lounges and recreation rooms, areas for outdoor activities, a dining room in which meals are served to patients of both sexes at the same time, diagnostic and therapeutic facilities including an electroencephalographic suite, small units for insulin and electro-convulsive treatment, and a dental clinic make possible intensive psychiatric and social treatments of all kinds. The male section was opened on May 3, 1960, with the transfer of 29 patients to the Acute Section for males. As of June 8, 1960, 144 patients were being treated in the Springer Building, 59 male, 85 female. Of this number 88 (34 male 54 female) were in the Acute Unit and 56 (25 male, 31 female) in the Convalescent Unit.

On April 23, 1960, in an appropriate ceremony, this building was dedicated to the memory of Willard Springer, Jr., who had been a member of the State Board of Trustees for 22 years, serving as President of the Board for nearly twelve years, his presidency terminating with his sudden death in February, 1956. The guest speaker for the occasion was Walter E. Barton, M.D., Superintendent of the Boston State Hospital, the President-Elect of the American Psychiatric Association. During the dedicatory exercises, the President of the Mental Health Association of Delaware, presented the 1960 Psychiatric Achievement Awards of the National Mental Health Association to Mrs. Jean Kowalik of the Delaware State Hospital and Mrs. Katherine Harding of the Governor Bacon Health Center.

In accord with the philosophy of returning to the community as soon as possible, patients who have benefited from intensive treatment of various kinds, the Drug Therapy—Home Care Program at the Delaware State Hospital has continued to be a vital force. During 1959-60, 226 patients left the Hospital under this program. Of this number, 114 remained under Home Care treatment at the end of the year.

Significant in the intensive treatment program have been the social therapy activities including the art, music, recreation, occupational, and industrial therapy programs designed to administer to the development of the individual patients. The increasing number of open wards in the Hospital is undoubtedly another contributing factor. To date there are nine patient areas with the so-called open-door policy, including the entire Observation Clinic.

Improvements to the physical plant and program of the Hospital for the Mentally Retarded continued during the fiscal year 1959-60. The Administration Building was completely remodeled. Further remodeling and redecorating of the former Medical Center, now designated the Educational Building, made available improved facilities for some phases of the social therapy program and offices for the Chaplain, the Psychological Division, the Day Care Centers, and the Assistant to the Dietitian. A new laundry building was completed and put into operation with equipment salvaged and renovated from the old laundry and several pieces of new equipment. All of the cottages for the patients received some renovation and redecoration to render them better homes for residential care. The Hospital for the Mentally Retarded received $4,000.00 from the 1960 Wilmington Flower Market to provide a music system for the Dr M. A. Tarumianz Medical Center and/or some of the cottages.

In June, 1956, the plans and allocation of funds were approved by the Federal Government to provide matching funds under the Hill-Burton Act for a rehabilitation center at the Hospital for the Mentally Retarded. This center will include such services as physical therapy, hydro-therapy, occupational therapy, speech therapy, psychotherapy, vocational counseling, social services, home economics training and vocational training. It will also contain a gymnasium and auditorium. It is intended that this center will serve not only resident patients but out-patient mentally retarded and physically handicapped persons from all the Delmarva Peninsula, including Delaware, part of Maryland, and part of Virginia.

The Delaware Association For Retarded Children allocated the first $10,000.00 from the 1960 All Star Football Game for this Rehabilitation Center. A private donor contributed $20,000.00 to construct an outdoor swimming pool for the Rehabilitation Center. The Center will also include the wading pool already constructed with funds contributed by the Beta Sigma Phi Sorority.

The Delaware Association For Retarded Children has been rated as leading "all the states in comprehensive services to retarded children and their families." During 1959-60 it maintained a Day Camp in which 71 boys and girls participated. For three weeks in August, 1960, the Association operated a supervised playground for retarded children. The weekly recreation program sponsored by the DARC at the Wlmington YWCA to provide

activities for mentally retarded young women has been so successful that plans were made in the spring to sponsor such a program for mentally retarded young men in the fall of 1960-61.

In addition to these programs the DARC gave support to other worthwhile projects for the mentally retarded in the State.

The Daytime Care Centers Program for the Severely Retarded continued to expand. On August 10, 1959, a fifth center was established at Stockley, Delaware, with six children and one training aide. At the close of the fiscal year the program comprised five centers with a total enrollment of 71 children cared for in thirteen units, each under the direction of a training aide. A total of 81 children received service during the year. Nine were discharged; one expired. Three of those discharged were admitted into residential care at The Hospital for the Mentally Retarded.

A survey was made by the Supervisor of the Day Care Centers Program to determine the number of mentally retarded persons in the State 20 years of age and older for whom services are desired but are lacking. Plans are in progress to care for this group.

The U. S. Office of Vocational Rehabilitation in Wilmington has contributed immeasurably to patients treated in the three psychiatric institutions. At the Delaware State Hospital 119 patients were referred to the training program while still in the Hospital. Of this number 92 received pre-discharge training. At the Hospital for the Mentally Retarded, 128 patients received vocational training in eighteen vocational centers under the Social Therapy Program.

The Opportunity Center, Inc., established in Wilmington, Delaware, in 1959 through private funds, trained a number of mentally and/or physically handicapped persons. At present approximately 100 are in training. Several have been able to undertake jobs on regular basis in some local industries.

The Research Program at the Delaware State Hospital continued during 1959-60 to contribute to the welfare of the patients and to scientific knowledge. In March, 1960, the Exchange Research Physician prepared his first report on patients' psychomotoric responses to various neuroleptic compounds. The National Institute of Health renewed the grant of $25,000.00 to make possible the continuation of the research project: Clinical Exploration of New Psychotropic Drugs. The Research study of the Clinical and Sociological Implications of Schizophrenia is continuing with Hospital funds.

On January 21, 1960, Senate Bill 321 was passed by the Senate, eliminating the mandatory retirement age for State Psychiatrist. The House of Representatives passed the bill on February 16, 1960, and it was signed into law by the Governor on February 26, 1960.

On May 8, 1960, the American Psychiatric Association presented a citation to your liaison in mental health for twelve years of uninterrupted service as Chairman of the Central Inspection Board.

Your liaison officer was elected President of the National Association of State Mental Health Program Directors for 1960-61. He was also reappointed Chairman of the Committee on Ethics of the American Psychiatric Association.

On June 16, 1960, a bronze bust of the State Psychiatrist and Superintendent was unveiled at the Mental Hygiene Clinic in Stockley. The bust was presented by friends of the subject and of mental health.

During the fiscal year the various psychiatric facilities in the State have been inspected by distinguished national and international visitors. Among them were the Governor of Ohio and his Staff, the Superintendent of Sterkfontein Mental Hospital in Johannesberg, South Africa, and his wife — also a psychiatrist, and a physician of St. Bernard's Hospital in London. A visitor to the Daytime Care Centers hopes to model after the Delaware Centers, such a program for her city in Turkey.

The fiscal year 1959-60 has indeed been a strategic and successful year for mental health activities in Delaware. These are unmet needs, however. The assistance of physicians and the lay public as well is necessary to interpret to the Legislature the needs of the mental institutions and agencies so that financial funds sufficient at least to maintain the present program will be made available. The lack of psychiatrists and other professional personnel vital to a dynamic preventive and treatment program is a constant handicap in trying to meet the mental health needs of the Delaware citizens.

Respectfully submitted,
M. A. Tarumianz, M. D.

The report was accepted.

Liaison with the Delaware Tuberculosis and Health Society

Statistics obtained from the Statistical Department of the Delaware State Board of Health indicate that up to October 1, 1960 there has been a marked increase in new tuberculosis cases diagnosed in comparison with the same period in 1959. In 1960-127 cases; in 1959-117 cases. This is an increase of 8½%. At last count 572 residents were receiving treatment in the hospital or at home.

The mobile unit teams of the Society and the State Board of Health continue to lead the attack on tuberculosis. Approximately 70,000 PFX x-rays are taken each year by the mobile units. Society and hospital units. In addition larger films are taken at our Society Building.

The second annual endowed lecture on some phase of RespiratoryDiseases, jointly sponsored by the Delaware Academy of Medicine and the Delaware Tuberculosis and Health Society, will be held at the Academy of Medicine Building on November 29, 1960. The speaker will be Richard H. Overholt, M.D., noted chest surgeon in Boston, Mass. Dr. Overholt's subject will be "Bronchiogenic Carcinoma".

During the year the Society's name was changed to the Delaware Tuberculosis and Health Society. It is felt this name includes the expansion of the Society s program into other respiratory diseases.

The recent Arden House report of the National Tuberculosis Association advocates the speeding up of the tuberculosis program to eradicate tuberculosis. The Society's activities include case finding, nursing care in cooperation with the Wilming-

ton Visiting Nurse Association; rehabilitation; nurse's scholarships at the University of Delaware; hospital student nurse program at the Emily P. Bissell Hospital; research in pulmonary function clinic sarcoidosis, and tuberculin testing.

Respectfully submitted,
Gerald A. Beatty, M.D., President

Liason with the State Board of Vocational Rehabilitation

During the course of the past year no problems have arisen which have involved the State Medical Society with the vocational rehabilitation program of the state. Many physicians throughout the state have worked with this service and a report of it's activities will be of interest to our Medical Society.

During the fiscal year ending June 30, 1960, 504 persons were rehabilitated in the state, this being the highest total for any year to date. In addition 968 additional individuals were in the process of receiving some service or being investigated concerning their eligibilty for rehabilitation. Of these 504 disabled persons, 92 were unemployed at the time of referral. The average wage before rehabilitation was $2.53 per week, and after, $43.49 per week. The earning potential of this group therefore in the course of 1 year would amount to more than $1,000,000.

Seventy-eight of the rehabilitated persons were welfare cases, who with their dependents totaled 222 individuals. The state thus has been spared the necessity of supporting these cases with a savings of approximately $64,000.

Orthopedic cases constituted 19% of those rehabilitated, tuberculosis 16% and mental illness 15%. It should be of interest to us that 38% of these individuals were 30 years of age or under. Approximately 30% of the referrals were made by Delaware physicians.

On the basis of the number of rehabilitations per 100,000 population, Delaware ranked fourth this past year. The committee feels that the state rehabilitation program, under the direction of Mr. John King should be commended for the high standards and the interest they have shown in rehabilitating our needy citizens in the state. Additional funds will have to be forthcoming in the succeeding years from the State Legislature if we wish to match the funds coming from the Federal Government which must be on a 50-50 basis.

Respectfully submitted,
S. Ward Casscells, M.D.

The report was accepted.

PRESIDENT MARVIL: We are now ready for Unfinished Business. Is there any unfinished business to come before the House of Delegates?

(There was no response.)

PRESIDENT MARVIL: Next we have the Election of Officers, and that will begin by a report of the Nominating Committee Chairman, Dr. Alden.

Report of the Nominating Committee

At a meeting held at Kent General Hospital on Thursday August 11, 1960, the following nominees for offices of the Medical Society of Delaware were selected for the year 1961-1962:

Vice President ..... G. A. Beatty
Secretary ..... Joseph W. Abbiss
Treasurer ..... Charles Levy
Representative to the Delaware Academy of Medicine ..... Victor D. Washburn

Standing Committees

COMMITTEE ON THE BUDGET
Charles Levy, Chairman (ex officio)
Richard W. Comegys
Robert F. Lewis
J. Stites McDaniel
Charles Walker, Jr.

COMMITTEE ON MEDICAL EDUCATION
G. Barret Heckler, Chairman
Laurence L. Fitchett
Leonard P. Lang

COMMITTEE ON PUBLIC LAWS
W. O. LaMotte, Jr. Chairman
James Beebe, Jr.
J. Leland Fox
Joseph S. McDaniel
Eugene R. McNinch

PROGRAM COMMITTEE
James T. Metzger, Chairman
Lawrence Katzenstein
John C. Rawlins

COMMITTEE ON PUBLICATIONS
A. Henry Clagett, Jr., Chairman
Joseph W. Abbiss (ex officio)
M. A. Tarumianz

COMMITTEE ON NOMINATIONS
James B. Homan, Chairman
Frank A. Jones
Robert R. Layton

STATE BOARD OF MEDICAL EXAMINERS
W. Morris Pierson
Robert R. Layton
Arnold H. Williams
Hewitt W. Smith
Gerald A. Beatty
Edmund G. Laird
James E. Marvil
Lewis B. Flinn
Franklin R. Everett
Oliver A. James

BOARD MEMBERS OF GROUP HOSPITAL SERVICE INC.

William B. Cooper
Conley L. Edwards
John A. Krieger
Charles Levy
H. Thomas McGuire
Edwin A. Mekanik

TO: The Council of the Medical Society of Delaware

From: The Committee on Nominations

Subject: Distinguished Service Award.

1. On July 8, 1960 Mr. Morris polled the membership of the Society for nominations for the annual Distinguished Service Award. The results of the poll are as follows:

Gerald A Beatty ..... 1 vote
Emil R. Mayerberg ..... 2 votes
Lewis B. Flinn ..... 5 votes
Lawrence J. Jones ..... 1 vote
Charles E. Wagner ..... 4 votes

Victor D. Washburn	4 votes
Henry V. P. Wilson	1 vote
Alfred R. Shands, Jr.	2 votes
Joseph B. Waples, Jr.	2 votes
Clarence J. Prickett	1 vote
I. J. MacCollum	1 vote
M. A. Tarumianz	2 votes
Willard F. Preston	1 vote
George W. K. Forrest	1 vote

2. The Committee submits the following names for your consideration:
Joseph B. Waples, Jr.
Charles E. Wagner
Victor D. Washburn

We feel that all three are deserving of the award. Dr. Waples name heads the list because his state of health is such that he may be unable to accept the award at a later time.

Respectfully submitted,
John W. Alden, Jr., Chairman
James B. Homan
Frank A. Jones
G. M. Van Valkenburgh

PRESIDENT MARVIL: Are there any nominations from the floor for any of these offices?

(There was no response.)

A motion was made seconded and carried to accept the report of the Nominating Committee.

PRESIDENT MARVIL: The next order of business will be New Business. First will be resolutions.

Resolution I

The Medical Society of Delaware approves the existence of the Virus Laboratory of Delaware and approves the increase in diagnostic facilities represented by it and encourages its use by the physicians of Delaware.

The resolution was adopted.

Resolution II

RESOLVED that the House of Delegates directs the Committee on Medical Economics and the staff to work with Group Hospital Service, Incorporated, to write a group Blue Cross-Blue Shield policy for the members of this Society.

PRESIDENT MARVIL: Is there any discussion about this matter? As I understand it, the members who are already in other groups would not be eligible. If you want it, you can take it. If you don't want it, you don't have to. If you take it there will be a savings of approximately 20 per cent.

A motion was made, seconded and carried to adopt the resolution.

PRESIDENT MARVIL: Do we have any other resolutions to come before the House of Delegates?

MR. MORRIS: The following resolution was introduced by Dr. Clagett and concerns regulation of ambulances.

Resolution III
Regulation of Ambulances

WHEREAS, a joint committee of the American College of Surgeons, the American Association for the Surgery of Trauma and the National Safety Council has found that "Speed is seldom, if ever, a factor in the preservation of life," and that "The excessive speed of ambulances has been shown to result in more traffic deaths than lives saved", and

WHEREAS, recent experience in Delaware involving disregard by ambulances of traffic regulations has resulted in injuries and death and has tended generally to confirm the conclusions cited above, and

WHEREAS, it seems fully possible that continued disregard by ambulances of normal traffic regulations may result in further injury and death, and

WHEREAS, it is the opinion of the members of this Society, as physicians, that the time gained by disregard by ambulances for traffic regulations is not balanced by the advantages, if any, of the time so saved, therefore be it

RESOLVED, That the Society favors a continuing program of education for ambulance attendants in conditions involving bleedings, anoxia, etc., for which adequate first-aid treatment can be given en route by a well-trained layman, and be it further

RESOLVED, That the Society favors revision in the traffic code of Delaware to regulate ambulances on the same basis as other vehicles are regulated.

The resolution was adopted.

Resolution IV

BE IT RESOLVED that the House of Delegates look with understanding and sympathy upon the problems of the nursing profession in relation to their work in doctors' offices and instructs the President to appoint a committee to study the problems brought up by this resolution and work out something of mutual understanding and benefit to both groups.

The resolution was adopted.

PRESIDENT MARVIL: Our next subject is In Memoriam. At this time the House rises for a moment of silence for physicians who have died since the last meeting. These are:

Olin S. Allen, M.D.
Charles H. Benning, M.D.
Dorsey W. Lewis, M.D.
Vincent Maguire, M.D.
Emil R. Mayerberg,M.D.
Meredith I. Samuel, M.D.
Robert H. Duenner, M.D.

(The group then stood in a moment of silence.)

PRESIDENT MARVIL: Next will be the selection of a meeting place for 1961. The by-laws specify New Castle County unless the House decides otherwise. If there is no objection, New Castle County will have the next meeting in 1961.

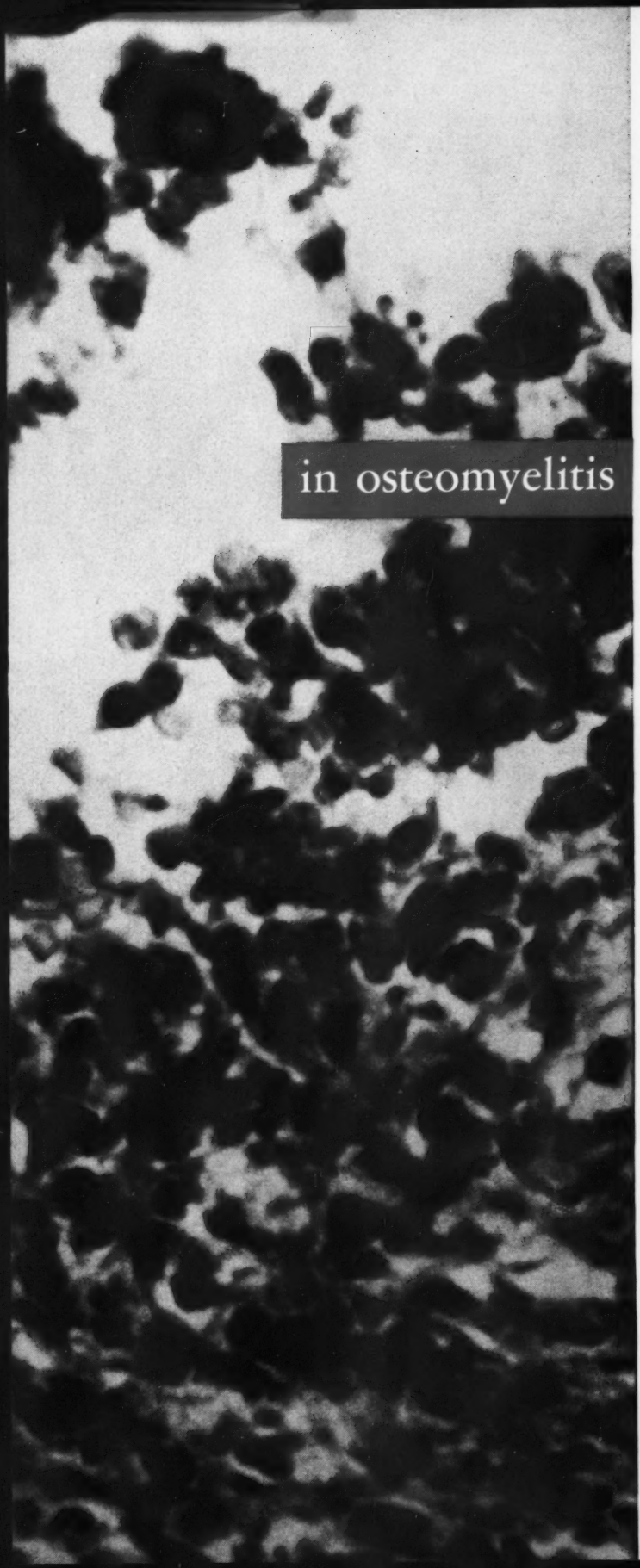
Is there any other business to come before the House?

(There was no response.)

PRESIDENT MARVIL: I now declare the House of Delegates adjourned.

(At 9:15 o'clock p.m., the Meeting of the House of Delegates was adjourned.)

Bone section: erosion
and purulent exudate



Therapeutic confidence

Panalba is effective against more than 30 commonly encountered pathogens including ubiquitous staphylococci. Right from the start, prescribing it gives you a high degree of assurance of obtaining the desired anti-infective action in this as in a wide variety of bacterial diseases.

Supplied: Capsules, each containing Panmycin* Phosphate (tetracycline phosphate complex), equivalent to 250 mg. tetracycline hydrochloride, and 125 mg. Albamycin,* as novobiocin sodium, in bottles of 16 and 100.

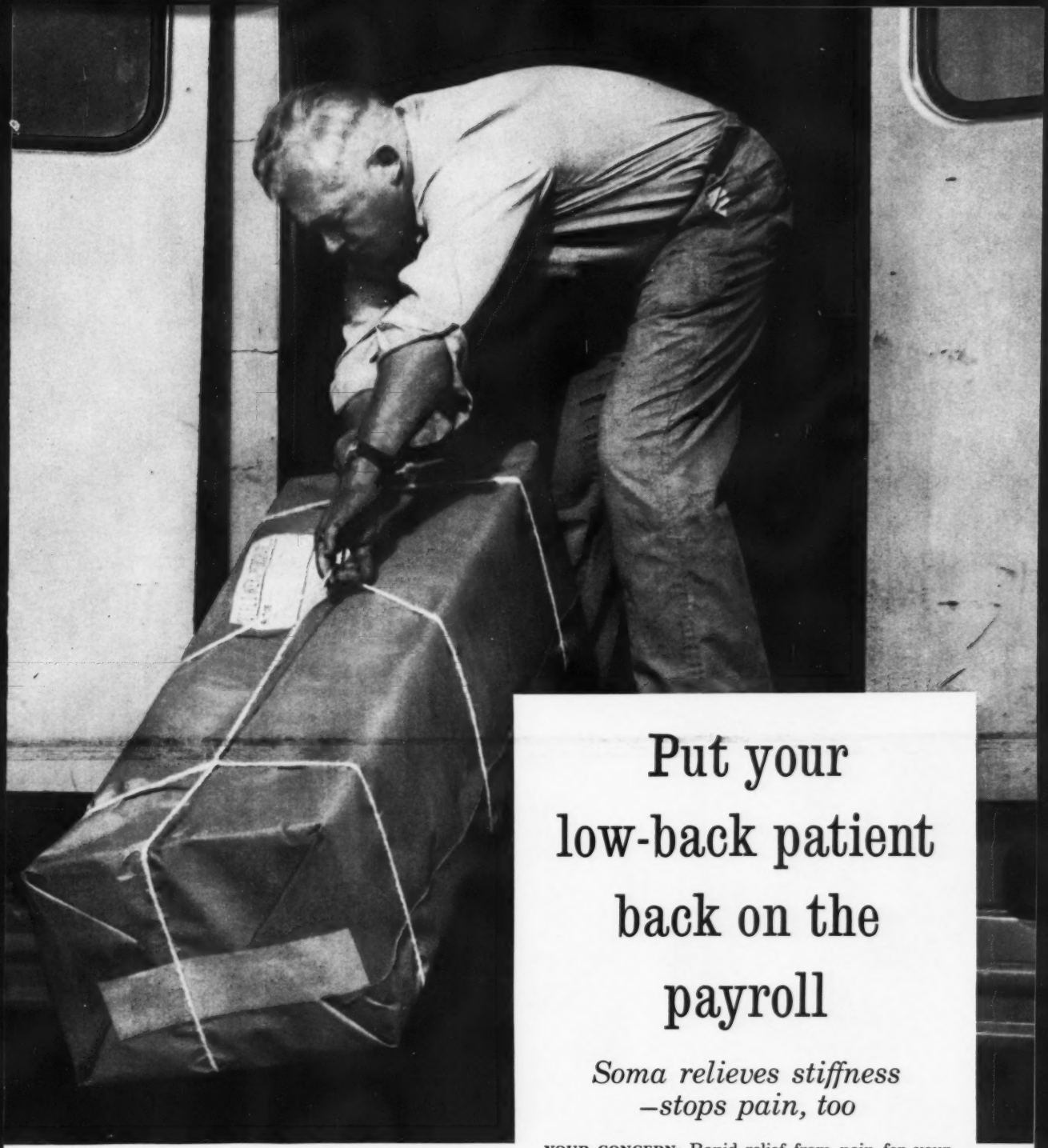
*Trademark, Reg. U. S. Pat. Off.

The Upjohn Company
Kalamazoo, Michigan

Upjohn

Panalba*

your broad-spectrum antibiotic of *first* resort



Put your low-back patient back on the payroll

Soma relieves stiffness —stops pain, too

YOUR CONCERN: Rapid relief from pain for your patient. Get him back to his normal activity—and fast!

HOW SOMA HELPS: Soma provides direct pain relief while it relaxes muscle spasm.

YOUR RESULTS: With pain relieved, stiffness gone, your patient is soon restored to full activity—often in days instead of weeks.

Soma is notably safe. Side effects are rare. Drowsiness may occur, but usually only in higher dosages. Soma is available in 350 mg. tablets. USUAL DOSAGE: 1 TABLET Q.I.D.

The muscle relaxant with an independent pain-relieving action

SOMA®

(carisoprodol, Wallace)

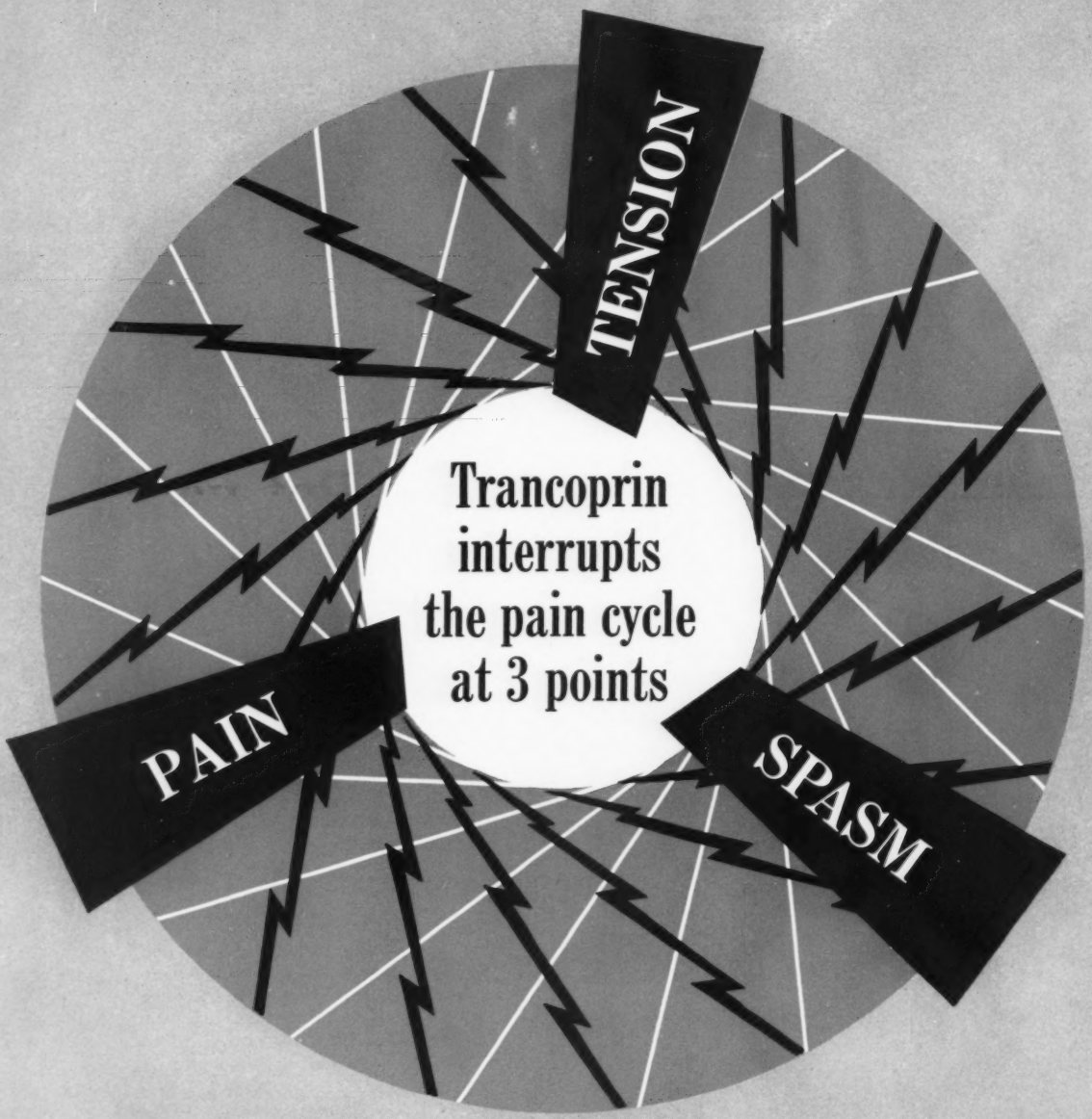
Wallace Laboratories, Cranbury, New Jersey

announcing...

Trancoprin®

acetylsalicylic acid (300 mg.) and chlormezanone (50 mg.)

Tablets



a broad spectrum non-narcotic analgesic

Trancoprin, a new analgesic, not only raises the pain perception threshold but, through its chlormezanone component, also relaxes skeletal muscle spasm[1-6] and quiets the psyche.[2,3-5,7]

The effectiveness of Trancoprin has been demonstrated clinically[8] in a number of patients with a wide variety of painful disorders ranging from headache, dysmenorrhea and lumbago to arthritis and sciatica. In a series of 862 patients,[8] Trancoprin brought excellent or good relief of pain to 88 per cent of the group. In another series,[9] Trancoprin was administered in an industrial dispensary to 61 patients with headache, bursitis, neuritis or arthritis. The excellent results obtained prompted the prediction that Trancoprin "... will prove a valuable and safe drug for the industrial physician."[9]

Exceptionally Safe

No serious side effects have been encountered with Trancoprin. Of 923 patients treated with Trancoprin, only 22 (2.4 per cent) experienced any side effects.[8,9] In every instance, these reactions, which included temporary gastric distress, weakness or sedation, were mild and easily reversed.

Indications

Trancoprin is recommended for more comprehensive control of the pain complex (pain → tension → spasm) in those disorders in which tension and spasm are complicating factors, such as: headaches, including tension headaches / premenstrual tension and dysmenorrhea / low back pain, sciatica, lumbago / musculoskeletal pain associated with strains or sprains, myositis, fibrositis, bursitis, trauma, disc syndrome and myalgia / arthritis (rheumatoid or hypertrophic) / torticollis / neuralgia.

Dosage

The usual adult dosage is 2 Trancoprin tablets three or four times daily. The dosage for children from 5 to 12 years of age is 1 tablet three or four times daily. Trancoprin is so well tolerated that it may be taken on an empty stomach for quickest effect. The relief of symptoms is apparent in from fifteen to thirty minutes after administration and may last up to six hours or longer.

How Supplied

Each Trancoprin tablet contains 300 mg. (5 grains) of acetylsalicylic acid and 50 mg. of chlormezanone [Trancopal® brand]. Bottles of 100 and 1000.

Trancoprin Tablets / non-narcotic analgesic

References: 1. DeNyse, D. L.: *M. Times* 87:1512, Nov., 1959. 2. Ganz, S. E.: *J. Indiana M. A.* 52:1134, July, 1959. 3. Gruenberg, Friedrich: *Current Therap. Res.* 2:1, Jan., 1960. 4. Kearney, R. D.: *Current Therap. Res.* 2:127, April, 1960. 5. Lichtman, A. L.: *Kentucky Acad. Gen. Pract. J.* 4:28, Oct., 1958. 6. Mullin, W. G., and Epifano, Leonard: *Am. Pract. & Digest Treat.* 10:1743, Oct., 1959. 7. Shanaphy, J. F.: *Current Therap. Res.* 1:59, Oct., 1959. 8. Collective Study, Department of Medical Research, Winthrop Laboratories. 9. Hergesheimer, L. H.: An evaluation of a muscle relaxant (Trancopal) alone and with aspirin (Trancoprin) in an industrial medical practice, to be submitted.

Winthrop LABORATORIES, New York 18, N. Y.

FIORINAL®

relieves pain,
muscle spasm,
nervous tension

rapid action • non-narcotic • economical

"We have found caffeine, used in combination with acetylsalicylic acid, acetophenetidin, and isobutylallylbarbituric acid, [Fiorinal] to be one of the most effective medicaments for the symptomatic treatment of headache due to tension."

Friedman, A. P., and Merritt, H. H.: J.A.M.A. *163*:1111 (Mar. 30) 1957.

Available: Fiorinal Tablets and New Form — Fiorinal Capsules

Each contains: Sandoptal (Allylbarbituric Acid N.F. X) 50 mg. (3/4 gr.), caffeine 40 mg. (2/3 gr.), acetylsalicylic acid 200 mg. (3 gr.), acetophenetidin 130 mg. (2 gr.).

Dosage: 1 or 2 every four hours, according to need, up to 6 per day.

SANDOZ

for acute

upper respiratory infections

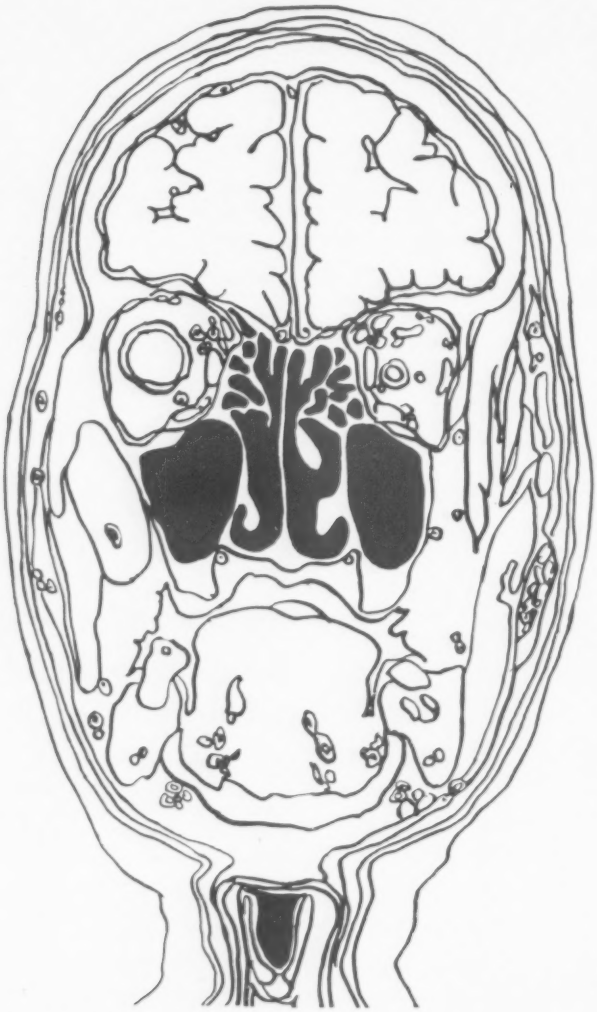
Tetrex®

capsules

The Original Tetracycline Phosphate Complex

U.S. PAT. NO. 2,791,609

effective control of pathogens...with an unsurpassed record of safety and tolerance

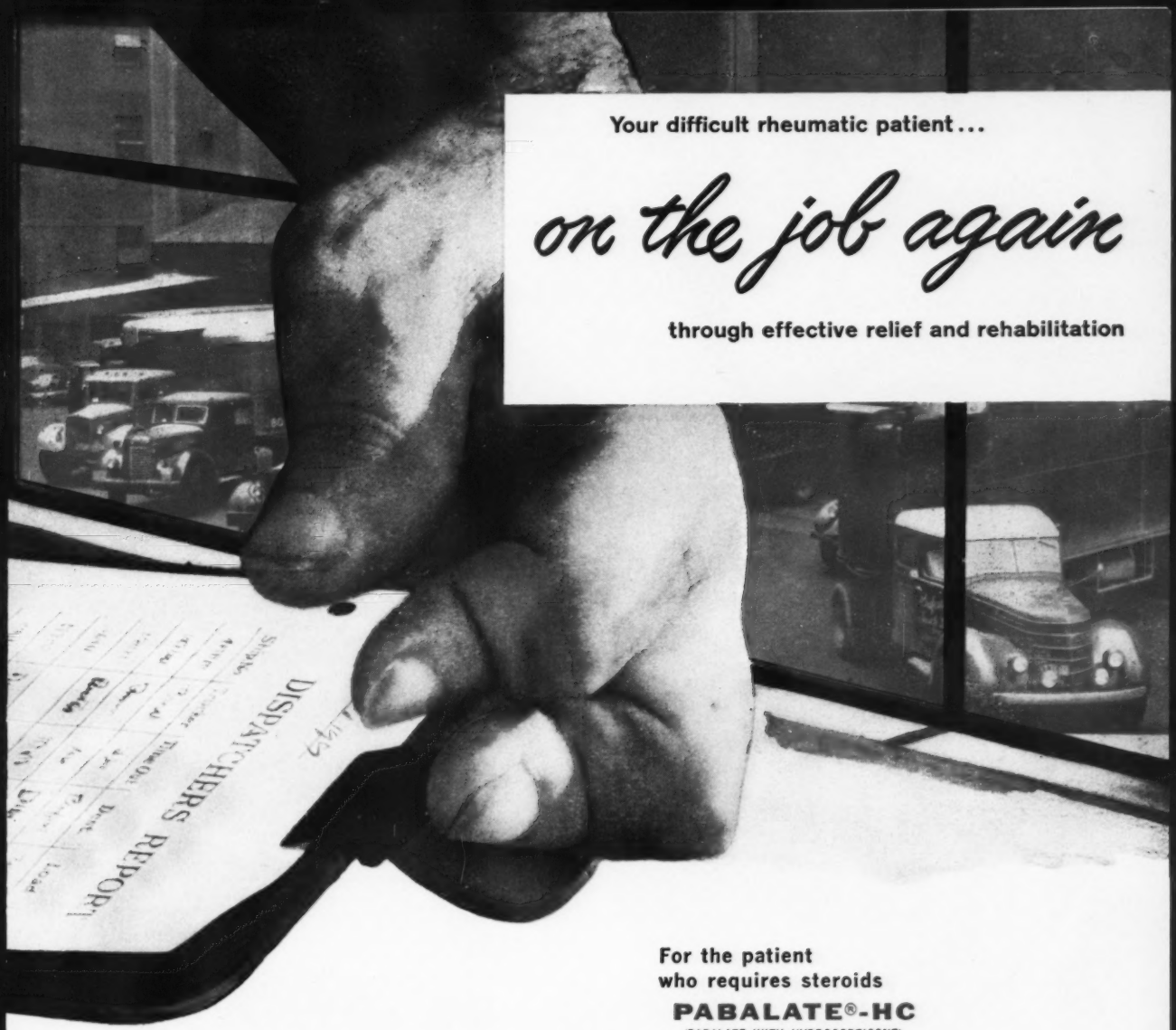


BRISTOL LABORATORIES, SYRACUSE, NEW YORK
Div. of Bristol-Myers Co.

BRISTOL™

SUPPLY: TETREX Capsules – tetracycline phosphate complex – each equivalent to 250 mg. tetracycline HCl activity. Bottles of 16 and 100.

TETREX Syrup – tetracycline (ammonium polyphosphate buffered) syrup – equivalent to 125 mg. tetracycline HCl activity per 5 ml. teaspoonful. Bottles of 2 fl. oz. and 1 pint.



Your difficult rheumatic patient...

on the job again

through effective relief and rehabilitation

For the patient who does not require steroids

PABALATE®

Reciprocally acting nonsteroid antirheumatics . . . more effective than salicylate alone.

In each enteric-coated tablet:

Sodium salicylate U.S.P.....0.3 Gm. (5 gr.)
Sodium para-aminobenzoate .....0.3 Gm. (5 gr.)
Ascorbic acid .....50.0 mg.

or for the patient who should avoid sodium

PABALATE®-Sodium Free

Pabalate, with sodium salts replaced by potassium salts.

In each enteric-coated tablet:

Potassium salicylate .....0.3 Gm. (5 gr.)
Potassium para-aminobenzoate .....0.3 Gm. (5 gr.)
Ascorbic acid .....50.0 mg.

For the patient who requires steroids

PABALATE®-HC

(PABALATE WITH HYDROCORTISONE)

Comprehensive synergistic combination of steroid and nonsteroid antirheumatics... full hormone effects on low hormone dosage . . . satisfactory remission of rheumatic symptoms in 85% of patients tested.

In each enteric-coated tablet:

Hydrocortisone (alcohol) ..... 2.5 mg.
Potassium salicylate ..... 0.3 Gm.
Potassium para-aminobenzoate.. 0.3 Gm.
Ascorbic acid .....50.0 mg.

PABALATE® Robins PABALATE®-HC

For steroid or non-steroid therapy: SAFE DEPENDABLE ECONOMICAL

A. H. ROBINS CO., INC., RICHMOND 20, VIRGINIA • Ethical Pharmaceuticals of Merit since 1878

NEW FILM ON DEPRESSIONS

the diagnosis and treatment of

DEPRESSIONS *in private practice*

Prepared and narrated by S. Bernard Wortis, M.D., Dean of the School of Medicine and Post-Graduate Medical School, Chairman and Professor of the Department of Neurology and Psychiatry, New York University Medical Center

This timely teaching film is now available for showing to interested professional groups.

The film describes and illustrates the signs of depressions commonly seen in general medical practice, and outlines suggested plans of treatment by the family physician. Suggestions are given on methods of handling suicide risk, referral, treatment in consultation, and hospitalization.

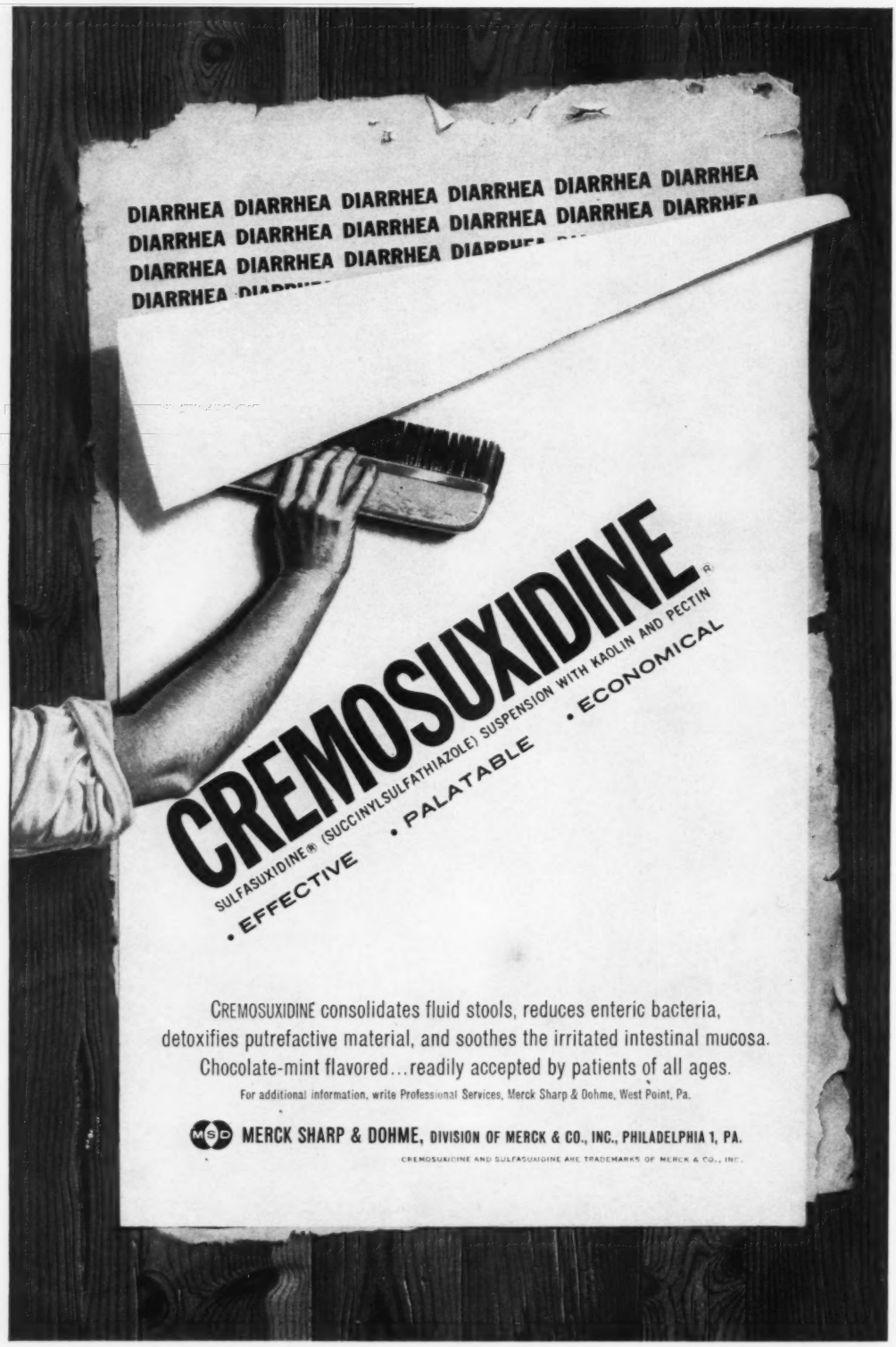
The film is black and white, sound-on-film, runs about 20 minutes and contains no commercial material.

To arrange for a group showing, please write the date you wish to show the film (list alternate dates, if possible) and the number of physicians expected to attend.

Mail your request to:

Professional Services Dept.
WALLACE LABORATORIES
Cranbury, N. J.

WALLACE LABORATORIES/*Cranbury, N. J. / producers of Deprol®*


DIARRHEA DIARRHEA DIARRHEA DIARRHEA DIARRHEA DIARRHEA
DIARRHEA DIARRHEA DIARRHEA DIARRHEA DIARRHEA
DIARRHEA DIARRHEA DIARRHEA
DIARRHEA
CREMOSUXIDINE®
SULFASUXIDINE® (SUCCINYLSULFATHIAZOLE) SUSPENSION WITH KAOLIN AND PECTIN
• EFFECTIVE • PALATABLE • ECONOMICAL
CREMOSUXIDINE consolidates fluid stools, reduces enteric bacteria, detoxifies putrefactive material, and soothes the irritated intestinal mucosa. Chocolate-mint flavored...readily accepted by patients of all ages.
For additional information, write Professional Services, Merck Sharp & Dohme, West Point, Pa.
MSD MERCK SHARP & DOHME, DIVISION OF MERCK & CO., INC., PHILADELPHIA 1, PA.
CREMOSUXIDINE AND SULFASUXIDINE ARE TRADEMARKS OF MERCK & CO., INC.

CONTROL WHEN IT IS VITALLY NEEDED: THORAZINE® INJECTION

brand of chlorpromazine

'Thorazine' can rapidly control the severely agitated patient, preventing him from harming himself or those around him. Usually, his belligerence, hostility and excitement are replaced by rational, docile behavior, and he becomes receptive to guidance and counselling.

'Thorazine' is so effective in agitation because it provides *an intense tranquilizing effect,* for control of both emotional and physical hyperactivity; and *a transitory soporific effect,* for added initial control of physical hyperactivity.

SK&F

Smith Kline & French Laboratories